

# UNIVERSITY OF ILLINOIS

## ANNUAL REGISTER

1918-1919



THE UNIVERSITY

OF ILLINOIS

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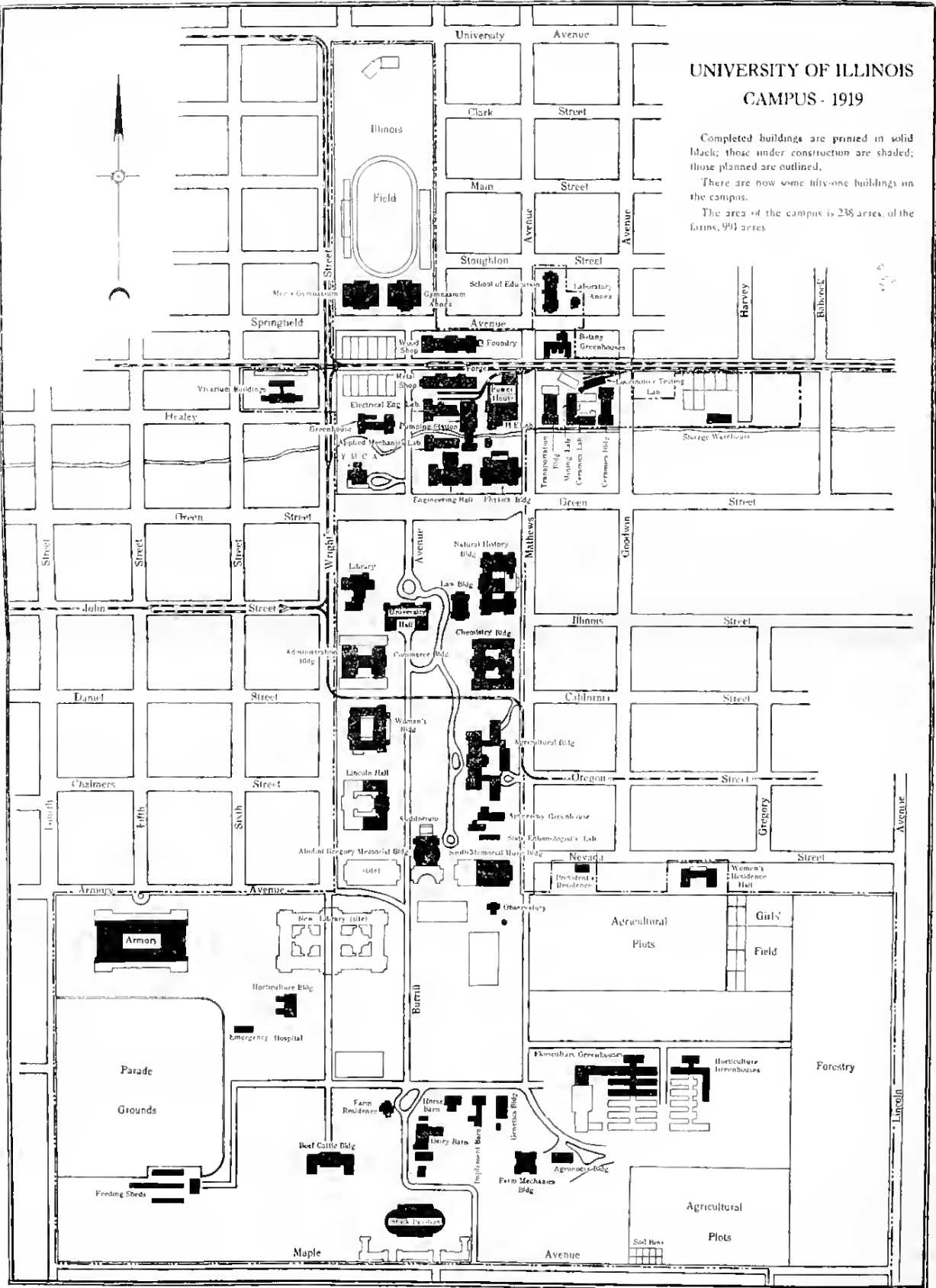
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# UNIVERSITY OF ILLINOIS CAMPUS - 1919

Completed buildings are printed in solid black; those under construction are shaded; those planned are outlined.

There are now some fifty-one buildings on the campus.

The area of the campus is 238 acres, of the farms, 994 acres.







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# University of Illinois

## ANNUAL REGISTER 1918-1919

General Announcements, 1919-1920  
Faculty and Courses, 1918-1919  
Students, 1918-1919

URBANA  
PUBLISHED BY THE UNIVERSITY  
APRIL, 1919

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# CALENDAR 1918, 1919, 1920

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1920

JANUARY	
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# THE UNIVERSITY CALENDAR

1918-1919-1920

## FIRST QUARTER

1918

Sept. 9-13, Mon.-Fri.	Entrance examinations
Sept. 10, Tues., 10 a. m.	Quarterly meeting of the Board of Trustees
Sept. 16, 17, Mon., Tues.	REGISTRATION DAYS originally announced (see Sept. 30)
Sept. 18-20, Wed.-Fri.	Entrance examinations, Chicago departments
Sept. 23-26, Mon.-Thurs.	Examinations for removal of conditions, College of Medicine
Sept. 23-27, Mon.-Fri.	Second set of entrance examinations, Urbana
Sept. 30, Oct. 1, 2, Mon.-Wed.	REGISTRATION DAYS
Oct. 1, Tues., 11 a. m.	Nation-wide S. A. T. C. inaugural ceremony
Oct. 3, Thurs., 8 a. m.	Instruction begun
Sept. 30, Mon.	Registration begun, Chicago departments
	Instruction begun, College of Medicine
Oct. 1, Tues.	Instruction begun, School of Pharmacy
Oct. 2, Wed.	Instruction begun, College of Dentistry
Oct. 5, Sat.	Registration closes, College of Medicine
Oct. 7, Mon., 4 p. m.	Senate meeting
Oct. 12, Sat.	Registration closes, College of Dentistry
Oct. 14, Mon., 5 p. m.	Latest day for rebates in full and for change of study-list without fee
Oct. 29, Tues.	Latest day for removal of "incompletes"
Nov. 4, Mon., 5 p. m.	Latest day for announcement of subjects for all graduate and undergraduate theses
Nov. 9, Sat., 12 m.	Latest day for rebate of one-half fees
Nov. 21-23, Thurs.-Sat.	High-school conference
Nov. 28, Thurs.	Thanksgiving Day
Dec. 2, Mon., 4 p. m.	Senate meeting
Dec. 3, Tues.	Illinois Day
Dec. 10, Tues., 10 a. m.	Quarterly meeting of the Board of Trustees
8 p. m.	Christmas Concert
Dec. 21, Sat., 1 p. m.	End of First Quarter
Dec. 25, Wed.	Christmas Day
Dec. 26-28, Thurs.-Sat.	Entrance examinations
Dec. 31, Tues., 5 p. m.	Latest day for submission of outlines of theses by candidates for professional degrees in engineering

## SECOND QUARTER

1919

Jan. 3, 4, Fri., Sat.	REGISTRATION DAYS
Jan. 6, Mon., 8 a. m.	Instruction begun
Jan. 16, Thurs., 5 p. m.	Latest day for rebates in full and for change of study-list without fee

Feb. 5, Wed.		Latest day for removal of "incompletes"
Feb. 10, Mon.		Second semester begun, Colleges of Medicine and Dentistry and School of Pharmacy
	4 $\frac{1}{2}$ p. m.	Senate meeting
Feb. 12, Wed.		Lincoln Day
Feb. 21, Fri.		Military ball
Feb. 22, Sat.		Washington Day
Mar. 1, Sat.,	12 m.	Latest day for rebate of one-half fees
Mar. 2, Sun.		University Day
Mar. 7, Fri.		Annual band concert
Mar. 11, Tues.		Annual meeting of the Board of Trustees
Mar. 14, Fri.		Midwest League debate
Mar. 22-26, Sat.-Wed.		Second quarter examinations

**THIRD QUARTER**

Mar. 31, Apr. 1, Mon., Tues.		REGISTRATION DAYS
Apr. 2, Wed.,	8 a. m.	Instruction begun
	5 p. m.	Latest day for filing completed theses by candidates for professional degrees in engineering
Apr. 7, Mon.		Senate meeting
		Animal husbandry inspection trip begun
Apr. 12, Sat.,	12 m.	Latest day for rebates in full and for change of study-list without fee
Apr. 18, Fri.		Chemistry inspection trip begun
Apr. 20, Sun.		Easter Day
Apr. 21-26, Mon.-Sat.		Geology inspection trip
May 2, Fri.		Latest day for removal of "incompletes" and for removal by seniors of second quarter failures
		Northern Oratorical League contest
May 15-17, Thurs.-Sat.		Public School art exhibit
May 16, Fri.		Interscholastic oratorical contest
May 17, Sat.		Interscholastic track meet
	12 m.	Circus
May, between 15 and 31		Latest day for the receipt by the Dean of the Graduate School of certified copies of Doctors' theses
		Hazleton prize drill; annual inspection; company competitive drill
May 24, Sat.,	12 m.	Latest day for rebates of one-half fees
May 30, Fri.		Military Day
June 2, Mon.,	4 p. m.	Senate meeting
June 9, Mon.		Latest day for acceptance of undergraduate theses
June 10, Tues.,	10 a. m.	Quarterly meeting of the Board of Trustees
June 14-18, Sat.-Wed.		Third quarter examinations
June 16, Mon.,	12 m.	Latest date for receipt by the Dean of the Graduate School of certified copies of Masters' theses
June 22, Sun.		Baccalaureate address
June 23, Mon.		FORTY-EIGHTH ANNUAL COMMENCEMENT

**SUMMER SESSION, 1919**

June 24, Tues.		Registration Day
June 25, Wed.,	8 a. m.	Instruction begun



June 30, Mon., 5 p. m.  
 July 19, Sat., 12 m.  
 Aug. 14-15, Thurs.-Fri.

Latest day for rebates in full  
 Latest day for rebates of one-half fees  
**Final examinations**

**FIRST SEMESTER, 1919-1920**

Sept. 9, Tues., 10 a. m.	Quarterly meeting of the Board of Trustees
Sept. 15-19, Mon.-Fri.	Entrance examinations
Sept. 17, Wed.	Scholarship examination for second nominees
Sept. 17-19, Wed.-Fri.	Entrance examinations, College of Dentistry
Sept. 22-23, Mon.-Tues.	REGISTRATION DAYS
Sept. 22, Mon., 7 p. m.	Examination for exemption from Rhetoric 1
Sept. 24, Wed., 8 a. m.	Instruction begun
4 p. m.	Freshman convocation
Sept. 24-26, Wed.-Fri.	Entrance Examinations, departments in Chicago
Sept. 27, Sat.	Assignments in the Brigade posted (Engineering Building, first floor, west end)
Sept. 29, Mon.	Military Drill and Hygiene lectures (Phys. Ed. 1a and 9) begun
Sept. 29-30, Mon.-Tues.	Registration begun, Colleges of Medicine and Dentistry and School of Pharmacy
Sept. 29-Oct. 2, Mon.-Thurs.	Examinations for removal of conditions, College of Medicine
Oct. 1, Wed., 8 a. m.	First semester begun, College of Medicine
8:30 a. m.	First semester begun, College of Dentistry
10 a. m.	First semester begun, School of Pharmacy
Oct. 4, Sat., 5 p. m.	Latest day for rebates in full and for change of study-list without fee
Oct. 6, Mon., 4 p. m.	Senate meeting
Oct. 11, Sat.	Registration closed, Colleges of Medicine and Dentistry
Oct. 17, Fri.	Assignment of vacant scholarships in agriculture and home economics
Oct. 24, Fri.	Latest day for removal of "incompletes"
Nov. 3, Mon., 5 p. m.	Latest day for announcement of subjects for all undergraduate and graduate theses
Nov. 20-22, Thurs.-Sat.	High school conference
Nov. 22, Sat.	Home economics inspection trip
Nov. 26, Wed., 12 m.	Latest day for rebate of one-half fees
	Thanksgiving recess begun, Colleges of Medicine and Dentistry and School of Pharmacy
Nov. 27, Thurs.	Thanksgiving Day
Dec. 1, Mon., 8 a. m.	Instruction resumed, College of Medicine
8:30 a. m.	Instruction resumed, College of Dentistry
9 a. m.	Instruction resumed, School of Pharmacy
4 p. m.	Senate meeting
Dec. 3, Wed.	Illinois Day
Dec. 9, Tues., 10 a. m.	Quarterly meeting of the Board of Trustees
8 p. m.	Christmas concert
Dec. 12, Fri., 8 p. m.	Iowa-Minnesota-Illinois debates
	Junior promenade
Dec. 20, Sat., 11 a. m.	Holiday recess begun

Dec. 23, Tues., 5 p. m.	Holiday recess begun, College of Dentistry and School of Pharmacy
6 p. m.	Holiday recess begun, College of Medicine
Dec. 31, Wed., 5 p. m.	Latest day for submission of outlines of theses by candidates for professional degrees in engineering
<i>1920</i>	
Jan. 5, Mon., 8 a. m.	Instruction resumed, College of Medicine
8:30 a. m.	Instruction resumed, College of Dentistry
9 a. m.	Instruction resumed, School of Pharmacy
1 p. m.	Instruction resumed
Jan. 12-24	Short courses in agriculture and home economics
Jan. 29, Thurs.	Semester examinations begun
Feb. 2, Mon., 4 p. m.	Senate meeting
Feb. 2-6, Mon.-Fri.	Semester examinations, Colleges of Medicine and Dentistry and School of Pharmacy
Feb. 4-7, Wed.-Sat.	Entrance examinations
Feb. 5, Thurs.	Semester examinations ended

## SECOND SEMESTER, 1919-1920

Feb. 9, Mon., 8 a. m.	Second semester begun, College of Medicine
8:30 a. m.	Second semester begun, College of Dentistry
10 a. m.	Second semester begun, School of Pharmacy
Feb. 9-10, Mon.-Tues.	REGISTRATION DAYS
Feb. 11, Wed., 8 a. m.	Instruction begun
Feb. 12, Thurs.	Lincoln Day
Feb. 20, Fri.	Military Ball
Feb. 21, Sat.	Last day for rebates in full and for change of study-list without fee
Feb. 22, Sun.	Washington Day
Mar. 2, Tues.	University Day
Mar. 5, Fri.	Annual band concert
Mar. 9, Tues.	Annual meeting of the Board of Trustees
Mar. 12, Fri.	Latest day for removal of "incompletes" and for removal by seniors of first semester failures
Mar. 26, Fri.	Michigan-Illinois-Wisconsin debate
Apr. 1, Thurs., 11 a. m.	Easter recess begun
5 p. m.	Latest day for filing of completed theses by candidates for professional degrees in engineering
6 p. m.	Easter recess, College of Medicine
Apr. 5, Mon., 8 a. m.	Instruction resumed, College of Medicine
8:30 a. m.	Instruction resumed, College of Dentistry
9 a. m.	Instruction resumed, School of Pharmacy
4 p. m.	Senate meeting
Apr. 6, Tues., 1 p. m.	Instruction resumed
Apr. 10, Sat., 5 p. m.	Latest day for rebates of one-half fees
May 7, Fri.	Northern Oratorical League contest
May, between 15 and 31	Hazleton prize drill
	Annual inspection
	Company competitive drill

May 15, Sat., 12 m.	Latest day for the receipt by the Dean of the Graduate School of certified copies of doctors' theses
May 20-22, Thur.-Sat.	Public school art exhibit
May 21, Fri.	Interscholastic oratorical contest
May 22, Sat.	Interscholastic athletic meet
May 28, Fri.	Military Day
May 30, Sun.	Memorial Day
May 31, Mon.	Final examinations begun, Colleges of Medicine and Dentistry and School of Pharmacy
June 3, Thurs., 8 a. m.	Final examinations begun
June 4, Fri.	Final examinations ended, Colleges of Medicine and Dentistry and School of Pharmacy
June 5, Fri.	Latest day for receipt by the Dean of the Graduate School of certified copies of masters' theses
June 7., Mon.	Latest day for acceptance of undergraduate theses
4 p. m.	Senate meeting
June 10, Thurs.	Final examinations ended
June 11, Fri.	Class day, College of Dentistry
June 13, Sun.	Class day and alumni meeting, College of Medicine
June 14, Mon.	Baccalaureate address
8:30 p. m.	Class day
June 15, Tues.	Senior ball
10 a. m.	Alumni day
June 16, Wed.	Quarterly meeting of the Board of Trustees
	<b>FORTY-NINTH ANNUAL COMMENCEMENT</b>

# THE BOARD OF TRUSTEES

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## MEMBERS EX-OFFICIO

### The Governor of Illinois

HON. FRANK O. LOWDEN.....*Springfield*

### The Superintendent of Public Instruction

HON. FRANCIS G. BLAIR.....*Springfield*

## ELECTED MEMBERS

(Term, 1915-1921)

ROBERT F. CARR.....*2005 McCormick Building, Chicago*

LAURA B. EVANS.....*Taylorville*

ROBERT R. WARD.....*Benton*

(Term, 1917-1923)

WILLIAM L. ABBOTT.....*72 West Adams Street, Chicago*

MARY E. BUSEY.....*Urbana*

OTIS W. HOIT.....*Geneseo*

(Term, 1919-1925)

JOHN M. HERBERT.....*Murphysboro*

CAIRO A. TRIMBLE.....*Princeton*

MARGARET DAY BLAKE.....*25 E. Walton Place, Chicago*

## OFFICERS OF THE BOARD

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HARRISON E. CUNNINGHAM, Urbana.....*Secretary*

HAZEN S. CAPRON, Champaign.....*Treasurer*

LLOYD MOREY, Urbana.....*Comptroller*

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Robert F. Carr, Chairman; William L. Abbott, Otis W. Hoit

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*Buildings and Grounds*—William L. Abbott, Chairman; Laura B. Evans, Robert F. Carr, Robert R. Ward, Margaret Day Blake

*Finance*—Cairo A. Trimble, Chairman; Mary E. Busey, Otis W. Hoit, Robert R. Ward, John M. Herbert

*Engineering*—Otis W. Hoit, Chairman; William L. Abbott, Cairo A. Trimble

*Agriculture*—Robert R. Ward, Chairman; Otis W. Hoit, John M. Herbert

*College of Medicine and School of Pharmacy*—Robert F. Carr, Chairman; William L. Abbott, Margaret Day Blake

*Students' Welfare*—Laura B. Evans, Chairman; Mary E. Busey, Margaret Day Blake

*Instruction*—Francis G. Blair, Chairman; Robert R. Ward, John M. Herbert

*Library*—Mary E. Busey, Chairman; Laura B. Evans, Cairo A. Trimble

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JOHN G. DRENNAN.....	<i>Chicago</i>
WILLIAM R. HUNTER.....	<i>Kankakee</i>
WALTER C. LINDLEY.....	<i>Danville</i>
GEORGE T. PAGE.....	<i>Peoria</i>
PETER P. SCHAEFER.....	<i>Champaign</i>

## SCHOOL OF PHARMACY

E. A. SELL.....	<i>Springfield</i>
O. U. SISSON.....	<i>Chicago</i>
JOHN C. WHEATCROFT.....	<i>Grayville</i>
GEORGE C. LESCHER <sup>1</sup> .....	<i>Galesburg</i>
ALBERT ZIMMERMAN.....	<i>Peoria</i>

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F. W. BUTTERWORTH.....	<i>Danville</i>
A. W. GATES.....	<i>Monmouth</i>
W. D. GATES.....	<i>Chicago</i>
J. W. STIPES.....	<i>Champaign</i>
THEODORE G. DICKINSON.....	<i>Chicago</i>

## COLLEGE OF ENGINEERING FOR THE RAILWAY INDUSTRIES OF ILLINOIS

R. H. AISHTON.....	<i>Chicago</i>
C. H. MARKHAM.....	<i>Chicago</i>
W. G. BIERD.....	<i>Chicago</i>
HALE HOLDEN.....	<i>Chicago</i>
W. B. STOREY.....	<i>Chicago</i>

<sup>1</sup>Died, March 12, 1919.

# ADMINISTRATIVE OFFICERS

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## President of the University

EDMUND JANES JAMES, Ph.D., LL.D.

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GERALD DARFIELD STOPP, A.B., *Private Secretary to the President*

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LEVI AUGUSTUS BOICE, *Recorder*

IRA MELVILLE SMITH, LL.B., *Examiner*

GEORGE PHILIP TUTTLE, JR., B.S., *Examiner*

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FRANK HERMAN BEACH, A.B., *Bursar*  
MAURICE MILLER ZIEGLER, *Auditor*  
HAROLD MORTIMER EDWARDS, LL.B., *Purchasing Agent*

**THE DEAN OF MEN'S OFFICE**

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ARTHUR RAY WARNOCK, A.B., *Assistant Dean*

**THE DEAN OF WOMEN'S OFFICE**

RUBY ELIZABETH CAMPBELL MASON, A.M., *Dean*

**THE ASSISTANT DEAN OF FOREIGN STUDENTS' OFFICE**

ARTHUR ROMEYN SEYMOUR, Ph.D., *Assistant Dean*

**THE HIGH SCHOOL VISITOR'S OFFICE**

HORACE ADELBERT HOLLISTER, A.M., *High School Visitor*  
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<sup>1</sup>The Senate is composed of all University officers of full professorial rank and all others in charge of independent departments of instruction. The order is that of seniority. For index of names, see page 549.

<sup>2</sup>On leave of absence—Red Cross.

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<sup>1</sup> On leave for military service.

<sup>2</sup> Resigned, April 4, 1919.

<sup>3</sup> On leave, government service.

<sup>4</sup> On leave of absence.

<sup>5</sup> On leave, first and second quarters.

<sup>6</sup> On leave for military service, first quarter.

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<sup>1</sup> On leave of absence.

<sup>2</sup> On leave of absence, government service.

<sup>3</sup> Resigned.

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<sup>1</sup>On leave of absence.

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EARL KIRKWOOD AUGUSTUS,<sup>1</sup> B.S., *Associate in Animal Husbandry*

JULIET LITA BANE, B.S., *Assistant State Leader of Home Economics Extension*

HENRY BLUMBERG, Ph.D., *Associate in Mathematics*

WILLIAM SANFORD BROCK, B.S., *Associate in Pomology*

FLORENCE HELEN CHURTON, B.S., *Associate in Home Economics*

ERNEST MCCHESENEY CLARK, B.S., *Associate in Dairy Production Extension*

ARTHUR SAMUEL COLBY, B.S., *Associate in Pomology*

ROBERT EUGENE CUSHMAN, Ph.D., *Associate in Political Science and Assistant Dean of the College of Liberal Arts and Sciences*

ALICE LEORA EDWARDS, A.M., *Associate in Home Economics*

GEORGIA ELIZABETH FLEMING, B.S., *Associate in Textiles*

HARRY CHARLES GILKERSON,<sup>1</sup> B.S., *Associate in Soil Fertility*

JAMES HENRY GREENE, M.S., *State Leader in Junior Extension*

FLORENCE HARRISON, A.M., *Associate in Home Economics*

EARL D HAY, M.S., *Associate in Machine Design*

CHANCE STEVENS HILL, B.S., *Associate in Landscape Gardening*

THOMAS ERNEST LAYNG, Ph.D., *Associate in Chemistry*

EDGAR MCNAUGHTON, M.E., *Associate in Mechanical Engineering*

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CYRUS EDMUND PALMER, M.S., *Associate in Architectural Engineering*

OLIVE BELLE PERCIVAL, B.S., *Associate in Home Economics Demonstration*

CARL RAHN, Ph.D., *Associate in Psychology*

ELMER ROBERTS, Ph.D., *Associate in Genetics*

LEW R SARETT, A.B., LL.B., *Associate in Public Speaking*

ARTHUR JAMES SCHUETTNER, E.G., *Associate in Physical Education and Director of the Men's Gymnasium*

HOMERO SERIS, Ph.D., *Associate in Romance Languages*

RAYMOND STRATTON SMITH, Ph.D., *Associate in Soil Physics*

HOWARD JOHN SNIDER, B.S., *Associate in Soil Fertility*

FRED WILBUR TANNER, Ph.D., *Associate in Bacteriology*

EMMA LOUISE WARDELL, M.S., *Associate in Home Economics*

<sup>1</sup> Resigned.

JAMES WILBUR WHISENAND, M.S., *Associate in Animal Husbandry*  
 WILLIAM WODIN YAPP, M.S., *Associate in Dairy Husbandry*  
 JOHN BENJAMIN RICE, B.S., *Associate in Animal Husbandry*  
 CLARISSA RINAKER, Ph.D., *Associate in English*  
 SIEBELT LUKE SIMMERING,<sup>1</sup> M.E., *Research Associate in Mechanical Engineering*  
 EMIL RAUCHENSTEIN, B.S., *Associate in Farm Organization and Management*  
 DWIGHT LOGAN REID, A.B., M.S., *Associate in Agricultural Education*  
 NEWTON EDWARD ENSIGN, A.B., B.S., *Associate in Theoretical and Applied Mechanics*  
 GEORGE WELLINGTON PICKELS, JR., C.E., *Associate in Drainage Engineering*  
 JOHN S CLEAVINGER,<sup>2</sup> A.B., B.L.S., *Associate in Library Science*  
 LEROY ALONZO WILSON, M.M.E., *Research Associate in Mechanical Engineering*  
 ARTHUR MAXWELL BRUNSON, B.S., *Associate in Plant Breeding*  
 WARD ELY PRATT, M.E., *Research Associate in Mechanical Engineering*  
 HAROLD EATON BABBITT, M.S., *Associate in Municipal and Sanitary Engineering*  
 HENRY GILMAN, Ph.D., *Associate in Chemistry*  
 HARRY O MOORE, 1st Lieutenant, 83rd F.A., *Associate in Military Science*

### LECTURERS

ROBERT ENOCH HIERONYMUS, A.M., LL.D., *Community Adviser*  
 JAMES MICHAEL O'GORMAN, A.M., *Lecturer on Education*  
 ARLIE GLENN CAPPS, A.M., *Lecturer on Education*  
 SUSANNAH USHER,<sup>3</sup> B.S., *Lecturer on Marketing*  
 WILLIAM DRAPER HARKINS, Ph.D., *Lecturer on Chemistry*  
 CHARLES ELMER HOLLEY, Ph.D., *Lecturer on Education*  
 EVA CLOUD TAYLOR, *Special Lecturer on Library Work for Children*  
 CLARA E HOWARD, *Special Lecturer on High School Administration*

### INSTRUCTORS

MARTHA JACKSON KYLE, A.M., *Instructor in English*  
 DAISY LUANA BLAISDELL, A.M., *Instructor in Romance Languages*  
 HENRI JACOBUS VAN DEN BERG, *Instructor in Piano*  
 EDGAR THOMAS LANHAM, *Instructor in Forge Shop*  
 MARY MINERVA WETMORE, *Instructor in Art and Design*  
 ARMIN HAJMAN KOLLER, Ph.D., *Instructor in German*  
 EDSON WILFRED MORPHY, *Instructor in Violin*  
 EDNA ALMEDA TREAT, B.Mus., *Instructor in Piano*  
 ETHEL BOND, A.B., B.L.S., *Instructor in Library Economy and Assistant in charge of the Collections in Library Economy*  
 EDWIN JOHN MANLEY, *Instructor in Swimming and Manager of Intramural Athletics*  
 VERA BROOKS, A.B., *Instructor in Physical Education for Women*  
 STELLA MARY HAGUE, Ph.D., *Instructor in Botany*  
 ARTHUR GRENVILLE ELDREDGE, *Instructor in Photography and Director of the Photographic Laboratories*  
 ROBERT DOUGLAS GLASGOW, Ph.D., *Instructor in Entomology*  
 ROBERT CALVIN WHITFORD, Ph.D., *Instructor in English*  
 WILLIAM JAMES PUTNAM, B.S., *Instructor in Theoretical and Applied Mechanics*  
 JAMES HARVEY HOGUE, *Instructor in Foundry Practise*  
 GIDEON ROBERT FORBES, B.S., M.L.A., *Instructor in Art and Design*  
 ALLENE GREGORY, Ph.D., *Instructor in English*  
 ANNA LUE HUGHITT, *Instructor in Physical Education for Women*

<sup>1</sup> Resigned.

<sup>2</sup> Third quarter.

<sup>3</sup> First quarter.

ANANIAS CHARLES LITTLETON, A.M., *Instructor in Accountancy*  
 FRANK TATHAM JOHNSON, *Instructor in Voice*  
 MABELLE GENEVIEVE WRIGHT, B.Mus., *Instructor in Music*  
 WILLIAM EVERETT BRITTON, A.M., J.D., *Instructor in Business Law*  
 MERLIN HAROLD HUNTER, Ph.D., *Instructor in Economics*  
 CHARLES LEDEUC, LL.B., Ph.D., *Instructor in Accountancy*  
 OLGA EDITH LEAMAN, *Instructor in Music*  
 HARALD MALCOLM WESTERGAARD, Ph.D., *Instructor in Theoretical and Applied Mechanics*  
 LLOYD MOREY, A.B., B.Mus., C.P.A., *Instructor in Accountancy*  
 NELLIE EILEEN BUSSELL, A.B., *Instructor in Physical Education for Women*  
 JOHN VAN HORNE, Ph.D., *Instructor in Romance Languages*  
 SILAS ALONZO BRALEY, Ph.D., *Instructor in Chemistry*  
 JOHN GERHARD DIETRICHSON, Ph.D., *Instructor in Chemistry*  
 ERNEST CARROLL FAUST, Ph.D., *Instructor in Zoology*  
 ROY HANSEN, M.S., *Instructor in Soil Biology*  
 SEBASTIAN KARRER, Ph.D., *Instructor in Physics*  
 WILLIAM H SEVERNS, M.S., *Instructor in Mechanical Engineering*  
 SARAH AUGUSTA SUTHERLAND, B.S., *Instructor in Home Economics*  
 GORDON WATKINS, Ph.D., *Instructor in Economics*  
 ERNEST ALEXANDER REID, M.S., *Instructor in Electrical Engineering*  
 ELMER DERSHEM, Ph.D., *Instructor in Astronomy*  
 WILLIAM JOSEPH BINGEN, C.E., *Instructor in General Engineering Drawing*  
 LEO STARR BALDWIN, B.S., *Instructor in General Engineering Drawing*  
 RAY WALTER ARMS, E.M., *Instructor in Mining Engineering*  
 HUSSEIN HALOUK FIKRET, M.E., *Instructor in Mechanical Engineering*  
 WILLIAM FRANK MCCAUGHEY, A.B., *Instructor in Architectural Design*  
 GEORGE BURR McMILLEN, A.M., *Instructor in Railway Administration*  
 CHARLES LYMAN ELLIS, A.B., *Instructor in General Engineering Drawing*  
 JOHN GRENNAN, *Instructor in Foundry Practice and Management*  
 ROSALIE MARY PARR, Ph.D., *Instructor in Chemistry*  
 FRANCIS A HOBART, *Instructor in Machine Shop Management*  
 RANDOLPH PHILIP HOELSCHER, B.S., *Instructor in General Engineering Drawing*  
 RAYMOND FRANKLIN BORDEN, Ph.D., *Instructor in Mathematics*  
 ANNE MORRIS BOYD, A.B., B.L.S., *Instructor in Library Economy*  
 HENRY CHARLES ECKSTEIN, M.S., *Instructor in Animal Nutrition*  
 BURRILL RUPERT HALL, *Instructor in Pattern Shop Practice and Management*  
 JAMES ELIJAH MCATEE,<sup>1</sup> Ph.D., *Instructor in Mathematics*  
 CAROLINE RUTH MORRIS, A.B., *Instructor in Physical Education for Women*  
 RUTH ELIZA OKEY, Ph.D., *Instructor in Physiological Chemistry*  
 CHRIS SIMEON RHODE, B.S., *Instructor in Dairy Husbandry*  
 RALPH EMERSON RINDFUSZ, A.M., *Instructor in Chemistry*  
 JOHN RAYMOND SHULTERS, Ph.D., *Instructor in Romance Languages*  
 LEIGHTON J TRUE, B.S., *Instructor in Dairy Manufactures*  
 MABEL WILKERSON, Ph.B., *Instructor in Home Economics Extension*  
 JAMES EARL ROBERTSON, B.S., *Instructor in General Engineering Drawing*  
 MAY E McADAMS, B.S., *Instructor in Landscape Gardening*  
 CHARLES ALBERT ROUSE, A.M., *Instructor in English*  
 CHARLES L MORGAN, B.S., *Instructor in Architecture*  
 JOSEPH LOGAN RENTFRO, A.M., *Instructor in English*  
 WALTER ELWOOD FARNHAM, B.S., *Instructor in General Engineering Drawing*  
 ALTA GWINN SAUNDERS, A.M., *Instructor in Business English*

<sup>1</sup> Deceased, December, 1, 1918.

ERNEST ERWIN LEISY, A.B., *Instructor in English*  
 ALAN DUGALD MCKILLOP, A.M., *Instructor in English*  
 LYDA BOND, B.S., *Instructor in Home Economics and Director of the Lunch Room*  
 JOHN CHARLES THORPE,<sup>1</sup> M.E., *Instructor in Farm Mechanics*  
 LUCY LILLIAN NOTESTEIN, A.M., *Instructor in English*  
 WALLACE BRIGHT LIVESAY, B.S., *Instructor in Architectural Engineering*  
 THOMAS EDWARD O'DONNELL, B.S., *Instructor in Architectural Design*  
 ELIZABETH BENNETT GRENNAN, Ph.D., *Instructor in Mathematics*  
 MIRIAM ALICE FRANC, Ph.D., *Instructor in English*  
 WALTER BLACKBURN JONES, B.S., *Instructor in Farm Mechanics*  
 EARL WESLEY CARRIER, B.S., *Instructor in Civil Engineering*  
 JOSEPHINE BURNS GLASGOW, Ph.D., *Instructor in Mathematics*  
 ARTHUR BERESFORD, *Instructor in Voice*  
 PAUL HENRY BURKHART, B.S., *Instructor in Electrical Engineering*  
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 WALTER ELMER EKBLAW,<sup>2</sup> A.M., *Staff Fellow in Geology*  
 RUSSELL A WATT, B.S., *Instructor in General Engineering Drawing*  
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 FRANK WALKER REED, Ph.D., *Instructor in Mathematics*  
 STUART ALFRED QUEEN, A.M., *Instructor in Sociology*  
 ERNEST EDWARD CHARLTON, Ph.D., *Instructor in Chemistry*  
 EMIL CONRAD VOLZ, M.S., *Instructor in Olericulture*  
 GLENN SEYMOUR SKINNER, Ph.D., *Instructor in Chemistry*

#### ASSISTANTS

PETER JOSEPH REBMAN, *Assistant in Forge Shop*  
 CHARLES SERAPHIN CARRY, *Assistant in Romance Languages*  
 ALMA JESSIE NEILL, A.M., *Assistant in Physiology*  
 CHARLES FRANCIS HILL, A.M., *Assistant in Physics*  
 RAFAEL ARCANGEL SOTO, A.M., *Assistant in Romance Languages*  
 BEATRICE VIRGINIA COPLEY, A.M., *Assistant in English*  
 WILLIAM ALEXANDER VAN WINKLE, M.S., *Assistant in Chemistry*  
 CARL ELI PIKE,<sup>3</sup> B.S., *Assistant in Physics*  
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 JOSEPH KRAFKA, JR., A.M., *Research Assistant in Zoology*  
 MANUEL LEON LOPEZ, A.M., *Assistant in Romance Languages*  
 KATHERINE HILL PAUL, *Scientific Artist in Zoology*  
 CLARENCE HUDSON RICHARDSON,<sup>2</sup> B.S., *Assistant in Mathematics*  
 MARY EMMA RENICH, A.M., *Assistant in Botany*  
 HERBERT EPHRAIM FRENCH, A.M., *Assistant in Chemistry*  
 CARL SHIPP MARVEL, A.M., *Assistant in Chemical Manufactures*  
 SARGENT GASTMAN POWELL, M.S., *Assistant in Chemistry*  
 WILLIAM EDWIN ALLEY, *Assistant in Mechanical Engineering*  
 WORTH ARTHUR ALLISON, A.B., M.S., *Assistant in Animal Husbandry*  
 JAMES CURTIS AUSTIN, A.B., *Assistant in Classics*  
 ELISA CURTIS, *Assistant in Romance Languages*  
 GEORGE HARLAN DUNGAN, B.S., *Assistant in Crop Production*  
 WILLIAM EDMUND EDINGTON, A.B., *Assistant in Mathematics*  
 FLORENCE SANDER HAGUE, A.M., *Assistant in Zoology*

<sup>1</sup> First and second quarters.

<sup>2</sup> Resigned.

<sup>3</sup> Deceased, October, 1918.

EZRA CLARENCE HARRAH, A.B., *Research Assistant in Zoology*  
 WALTER WILSON JENNINGS, A.M., *Assistant in Economics*  
 EARL EMANUEL LIBMAN, B.S., *Assistant in Ceramic Engineering*  
 RUTH EVELYN MERLING, M.S., *Assistant in Chemistry*  
 HUBERT WATSON MOOR, B.S., *Assistant in Chemical Manufactures*  
 MYRON ARTHUR MYERS, B.S., *Assistant in Psychology*  
 JOHN PIEPER, M.S., *Assistant in Crop Production*  
 RALPH DANIEL REED, B.S., *Assistant in Geology*  
 ELEANOR FRANCES SEILER, A.M., *Assistant in Physics*  
 ALLEN EDWIN STEARN, M.S., *Research Assistant in Chemistry*  
 BIRD RICHARD STEPHENSON, A.M., *Assistant in Physics*  
 JESSIE MAY TOLAND, A.B., *Assistant in English*  
 JANE WATSON, A.M., *Assistant in Romance Languages*  
 LEWIS WARD WILLIAMS, Ph.B., *Assistant in Education*  
 ROSCOE WOODS, A.M., *Assistant in Mathematics*  
 MARJORIE LOUISE WALKER, A.M., *Assistant in English*  
 MANSON JAMES BRADLEY, A.M., *Assistant in Chemistry*  
 DAVID MADISON BULLOCK, *Assistant in Athletic Training*  
 RUTH SCOVELL FUNK, B.S., *Assistant in Bacteriology*  
 BYNE FRANCES GOODMAN,<sup>1</sup> A.M., *Assistant in History*  
 LEONARD LEO STEIMLEY, A.M., *Assistant in Mathematics*  
 ELMO SCOTT WATSON, A.B., *Assistant in English*  
 GERTRUDE L SWIFT, A.B., *Assistant in Lunch Room Management*  
 OTIS AVERY BARNES, M.S., *Assistant in Chemistry*  
 AXEL BRETT, A.M., *Assistant in Philosophy*  
 MASON HERBERT CAMPBELL, M.S., *Assistant in Dairy Husbandry*  
 GEORGE HOPKINS COLEMAN, B.S., *Research Assistant in Chemistry*  
 MILDRED DIMMICK, A.B., *Assistant in Romance Languages*  
 JOHN ABERDEEN GUNTON, A.M., *Assistant in Chemistry*  
 ALYDA CAREN HANSON, B.S., *Assistant in Geology*  
 JAMES BURTON HAYS, *Mechanical Assistant in Physics*  
 EDA AUGUSTA JACOBSEN, A.M., *Assistant in Home Economics*  
 JOSEPH JOHNSON, *Laboratory Assistant and Potter*  
 OLIVE BEATRICE JOHNSON,<sup>2</sup> B.S., *Assistant in Chemistry*  
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 NELL CONVERSE JOHNSTON, A.B., *Assistant in Education*  
 ERVIN ARTHUR KNOTH, *Assistant in Physical Education*  
 HELEN A MCGINNIS, A.B., *Assistant in Botany*  
 ANGELINE MCNEILL, A.B., B.L.S., *Reviser in the Library School*  
 WILLIAM WALTER MERRYMON, A.M., *Assistant in Physics*  
 MARY PACK, A.B., *Assistant in Home Economics Demonstration*  
 WILLIAM TELL POPE, *Mechanician and Assistant in Shop Laboratories*  
 EDWARD BYRON REUTER, A.M., *Assistant in Sociology*  
 JOSEPH BERNHARDT ROSENBACH, A.B., *Assistant in Mathematics*  
 CARL VON SCHLICHTEN, A.B., *Assistant in Geology*  
 JERRY SOTOLA, B.S., *Assistant in Olericulture*  
 ELINOR TRAXLER, A.B., *Assistant in Farm Organization and Management*  
 LESTER CARLTON VER NOOY,<sup>3</sup> A.M., *Assistant in Zoology*  
 ALFRED CHARLES VOGELE, B.S., *Assistant in Botany*

<sup>1</sup> Resigned.

<sup>2</sup> First quarter.

<sup>3</sup> Deceased.

- DORA KEEN, A.M., *Assistant in Education*  
CLARK WESLEY BULLARD, B.S., *Assistant in Farm Mechanics*  
FLORENCE M HUMPHREYS, A.M., *Assistant in English*  
J ORIN POWERS, A.M., *Assistant in Education*  
GERTRUDE DELÉ GAGER, A.B., *Assistant in Romance Languages*  
LENA JOSEPHINE MYERS, A.M., *Assistant in English*  
ANITA LIBMAN, A.B., *Research Assistant in Illinois Historical Survey*  
ROSSLEENE MERLE ARNOLD, A.M., *Assistant in Chemistry*  
MARGARET HATFIELD, A.B., *Laboratory Assistant in Home Economics*  
HELENE LOIS HINDS, A.M., *Assistant in English*  
OWEN V SHAFFER, B.S., *Assistant in Chemistry*  
ELMER NELS TURNQUIST, A.B., *Assistant in Physics*  
ELEANOR CRAIG, Ph.B., *Assistant in English*  
MIRIAM KNOWLTON, A.B., *Assistant in English*  
LELAND EDWARD YEAGER,<sup>1</sup> A.B., *Assistant in Mathematics*  
BERNHARD PAUL REINSCH, A.B., *Assistant in Mathematics*  
WILLIAM H LEWIS, A.B., *Assistant in Economics*  
DELLA D JUNKIN, A.B., *Assistant in Chemistry*  
MADGE RUSH, *Assistant in Physical Education for Women*  
ESTHER A WAGNER, A.B., *Research Assistant in Chemistry*  
HELENE ELEANORE DOTY, A.B., *Assistant in Chemistry*  
GENEVIEVE STEARNS, B.S., *Assistant in Chemistry*  
HENRY H BAILY, Ph.B., *Assistant in Accountancy*  
JOHN GOTTLEIB EPPINGER, A.B., *Assistant in Accountancy*  
KATHERINE THEILEN RUCKMICH, A.M., *Assistant in History*  
LILLIAN RUTH JOHNSTON, A.B., *Assistant in Physiology*  
RAYMOND EARLE WHITNEY, B.S., *Assistant in Chemistry*  
ESTHER CLEMENTS, B.S., *Assistant in Accountancy*  
LUCIE E ROOT, A.B., *Assistant in Chemistry*  
FLORENCE NIGHTINGALE SCHOTT, B.S., *Assistant in Chemistry*  
ROBERT ROYAL RUSSEL, A.M., *Assistant in History*  
RAY IRIS SHAWL, B.S., *Assistant in Farm Mechanics*  
LEO LEHR CARRICK, A.M., *Assistant in Chemistry*  
HARLAN HAMMOND EDWARDS, B.S., *Assistant in Highway Laboratory*  
GEORGE OTTO OBERHELMAN, A.M., *Assistant in Chemistry*  
CARL ERICK SAMUEL STREM, A.B., *Assistant in Chemistry*  
EDWIN ROLLIN SPENCER, M.S., *Assistant in Botany*  
VINCENT S DAY, B.S., *Research Assistant in Mechanical Engineering*  
PEMBROKE HOLCOMB BROWN, A.M., *Assistant in Economics*  
ROGER WENDELL VALENTINE, A.B., *Assistant in Economics*  
JOHN BERNIS BROWN, M.S., *Assistant in Chemistry*  
ELISABETH REINHARDT OLIVER, *Assistant in Romance Languages*  
KATHARINE LAYTON CRATHORNE, Ph.D., *Assistant in Romance Languages*  
NORRIS ONSLON TAYLOR, B.S., *Assistant in Chemistry*  
CLAUDE JEROME LAPP, A.B., *Assistant in Physics*  
HOWARD MARION CHILES, B.S., *Assistant in Chemistry*  
BERTRAM FEUER, *Research Assistant in Chemistry*  
ALBERT OTTO MATTHEWS, B.S., *Assistant in Chemistry*  
FRANK ERWIN RICHART, M.S., *Research Assistant in Theoretical and Applied Mechanics*  
FRED RODGERS MCCRUMB, B.S., *Assistant in Chemistry*

<sup>1</sup> Resigned.

HARRY WARREN DAY, B.S., *Assistant in Olericulture*  
 ROSCOE H GERKE, B.S., *Assistant in Chemistry*  
 RUSSELL W MILLAR, B.S., *Assistant in Chemistry*  
 ADELAIDE ELENA SMITHERS, A.B., *Assistant in Romance Languages*  
 LETHE ELEANORA MORRISON, B.S.,<sup>1</sup> *Assistant in Bacteriology*  
 LEE RAYMOND DICE, Ph.D., *Assistant in Zoology*  
 CHARLES THURMAN HUFFORD,<sup>2</sup> B.S., *Assistant in Soil Physics*

## GRADUATE ASSISTANTS

DOROTHY JOSEPHINE CASHEN, B.S., *Graduate Assistant in Botany*  
 ADAM A CHRISTMAN, B.S., *Graduate Assistant in Chemistry*  
 GEORGE BLACKLANE CLAYCOMB, M.S., *Graduate Assistant in Zoology*  
 ANNA MARY COLLINS, A.B., *Graduate Assistant in Zoology*  
 CHARLES WILLIAM COLVER, M.S., *Graduate Assistant in Chemistry*  
 CLARENCE WILLIAM HIPPARD, B.S., *Research Graduate Assistant in Mining Engineering*  
 HAN HO HUANG, B.S., *Research Graduate Assistant in Mining Engineering*  
 EDWARD ARTHUR JEUDE, B.S., *Graduate Assistant in Chemistry*  
 OLIVE BEATRICE JOHNSON, B.S., *Graduate Assistant in Chemistry*  
 WALTER RAYMOND KIRNER, B.S., *Graduate Assistant in Chemistry*  
 HAROLD WALKER LUCE, B.S., *Graduate Assistant in Chemistry*  
 WILLIAM RIGA LYON, B.S., *Research Graduate Assistant in Electrical Engineering*  
 GLADYS ELIZABETH McDONALD, A.B., *Graduate Assistant in Chemistry*  
 MARTHA ISABELLA McQUEEN,<sup>2</sup> A.B., *Research Graduate Assistant in Ceramic Engineering*  
 SAMUEL RUSSELL OFFUTT, B.S., *Research Graduate Assistant in Civil Engineering*  
 THERESA MARIE RENNER,<sup>2</sup> B.S., *Graduate Assistant in Chemistry*  
 DEETTE ROLFE,<sup>3</sup> A.M., *Graduate Assistant in Chemistry*  
 WILLIAM LOUIS SCHWALBE, B.S., *Research Graduate Assistant in Theoretical and Applied Mechanics*  
 GEORGE REED SHELTON, A.B., *Research Graduate Assistant in Ceramic Engineering*  
 FLOYD KINYON THAYER, A.B., *Graduate Assistant in Chemistry*  
 WILLIAM ALEXANDER VAN WINKLE, M.S., *Graduate Assistant in Chemistry*  
 LENNA ADAIR WOODS, A.B., *Graduate Assistant in Zoology*  
 FRANK HAROLD McCOMBS, B.S., *Graduate Assistant in Chemistry*  
 NEULON DEAHL, B.S., *Graduate Assistant in Chemistry*  
 PAUL CURTIS GWINN, A.B., *Graduate Assistant in Chemistry*

## STUDENT ASSISTANTS

HARRIET ANDERSON, *Student Assistant in Psychology*  
 CLARENCE EHNE BROCKER, *Student Assistant in Chemistry*  
 JESSE JAMES CANFIELD, *Student Assistant in Chemistry*  
 ROBERT HARVEY DAWSON, *Student Assistant in Chemistry*  
 ROBERT FOGELSON,<sup>2</sup> *Student Assistant in Chemistry*  
 MELBORN REDMON GRIGGSBY, *Student Assistant in Chemistry*  
 JOSEPH LOWE HALL, *Student Assistant in Chemistry*  
 RUTH HOOVER, *Student Assistant in Physical Education for Women*  
 HILDA KOHL, *Student Assistant in Psychology*  
 HARVEY WOOLSEY HYDE, *Student Assistant in Chemistry*  
 SAMUEL OMANSKY, *Student Assistant in General Engineering Drawing*  
 DOUGLASS WILLIAM STOCKHAM, *Student Assistant in Foundry Work*  
 LESTER CARLISLE PETERSON, *Student Assistant in Chemistry*

<sup>1</sup>To be awarded June, 1919.<sup>2</sup>Resigned.<sup>3</sup>First quarter.

**ASSISTANTS IN MILITARY SCIENCE**

HAROLD HOOVER HOLTZMAN, *Assistant in Military Science*

STANLEY WATERS BLISS, *Assistant in Military Science*

MYRON DAY DOWNS, *Assistant in Military Science*

GRIFFITH SIDNEY KENNELLEY, *Assistant in Military Science*

WILLIAMS FRANCIS EINBRECKER, *Assistant in Military Science*

RALPH SPEARS REDING, *Assistant in Military Science*

EMIL CLINE BENNETT, *Assistant in Military Science*

ROBERT ELLIOTT FULTON, JR., *Assistant in Military Science*

MORRIS ROSENTHAL MYERS, *Assistant in Military Science*

EPLER CADWELL MILLS, *Assistant in Military Science*

HAROLD PHILBRICK BUCK, *Assistant in Military Science*

ROBERT WILLIAM LORENTZ, *Assistant in Military Science*



# THE UNIVERSITY LIBRARY

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## STAFF

PHINEAS LAWRENCE WINDSOR, Ph.B., *Director of the Library and the Library School*

### *Order Department—*

FRANCIS KEESE WYNKOOP DRURY, A.M., B.L.S., *Assistant Librarian*  
MILES OSCAR PRICE, B.S., *Exchange Assistant*  
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CLARA AGNES RICKETTS, A.B., B.L.S., *Order Assistant*  
KATHERINE ADELE DOYLE, *Order Assistant*  
WILLIA K GARVER, B.L.S., *Order Assistant*

### *Loan Department—*

EMMA REED JUTTON, B.L.S., *Loan Librarian*  
SARAH ELIZABETH BRYAN, A.B., B.L.S., *Loan Assistant*  
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<sup>1</sup> Deceased.

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# THE COLLEGE OF MEDICINE

(Congress and Honore Streets, Chicago)

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 GOLDFYE HOFFMAN, M.D., *Assistant in Gynecology*  
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MARGARET AMERTON HEATH, B.A., *Assistant in Ophthalmology*  
YALE N LEVINSON,<sup>1</sup> M.D., *Assistant in Medicine*

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<sup>1</sup>Second semester.

# THE COLLEGE OF DENTISTRY

(Harrison and Honore Streets, Chicago)

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JAMES TOBIAS GROOT, B.S., *Assistant in Physiology*

WEBSTER BARCLAY ROSE, A.B., *Assistant in Chemistry*

LOUIS N BOELIO, *Assistant in Anatomy*

BARBARA RUEL, R.N., *Nurse in the Infirmary*

NELLIE FRAIN, *Artist*

HARVEY STALLARD, Ph.D., *Graduate Assistant in Zoology*

EMMONS SYLVESTER COE, A.B., *Student Assistant in Chemistry*



# THE SCHOOL OF PHARMACY

(Wood and Flourney Streets, Chicago)

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JAMES GROOT, *Lecturer on Physiology*  
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GEORGE FREDERICK VAUPELL, Ph.C., *Instructor in Chemistry*  
EDWIN HERBERT LEWIS,<sup>1</sup> Ph. D., *Instructor in War Issues*

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<sup>1</sup> First quarter.

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*Committee on Student Organizations and Activities*—Assistant Dean A. R. Warnock (chairman), Dean Ruby E. C. Mason (*ex officio*), Director Louise Freer, Assistant Professor A. W. Jamison, Professor F. R. Watson.

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*Committee on Appointment of Graduates*—Professor D. S. Hill (chairman), Associate Professor H. G. Paul, Professor H. A. Hollister.

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PART I  
GENERAL INFORMATION



# LOCATION

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The University of Illinois is situated in Champaign County, about fifty miles northeast of the geographical center of the State. It is 126 miles south of Chicago, 118 miles west of Indianapolis, 164 miles northeast of St. Louis.

The campus of the University lies partly within the corporate limits of the city of Urbana and partly within the corporate limits of the city of Champaign. The two municipalities form one community of about twenty-nine thousand inhabitants. The city halls of the two towns are two miles apart, the campus half way between. The railway, express, telegraph, and telephone services of both cities are available for the University. Mail for the institution itself should be directed to Urbana to insure prompt delivery. The Urbana post office maintains a sub-station at the University, located in the Library Building.

## Urbana-Champaign

The cities of Urbana and Champaign are in the heart of the "Corn Belt" and form the business and social center of a rich farming community.

In matters pertaining to health, conditions are good. There is a hospital within three blocks of the campus, in which students may be cared for at moderate expense. The University maintains a temporary emergency hospital.

The University has no dormitories, but the number of boarding houses is large, and there are sixty-three residence halls erected by fraternities, sororities, and local clubs.

There are thirty-six churches, representing thirteen denominations, and a number of students' religious associations, leagues, and guilds, including Young Men's and Young Women's Christian Associations.

Under a special State law, the liquor traffic has been barred from all territory within a radius of four miles from the University.

## Railway Connections

The University is connected with neighboring cities in Illinois, including Bloomington, Danville, Decatur, Peoria, and Springfield, and also with St. Louis, by the electric inter-urban lines of the Illinois Traction System.

It may be reached from Chicago and the north and from points in the south by the Illinois Central Railroad, being on the direct line from Chicago to Cairo and New Orleans. It is joined to the east and the west by the Peoria & Eastern Division of the "Big Four" route, as well as by the division of the Wabash Railway which connects Kansas City and St. Louis with Detroit and Buffalo.

The station of the Illinois Central Railroad is in Champaign. The Wabash and "Big Four" have stations in both Champaign and Urbana. There are several hotels in Champaign and Urbana within easy reach of the University, the Beardsley and the Inman in Champaign and the Columbian in Urbana being the largest.

# HISTORY

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## *1862. The Morrill Land Grant*

By this act the national government donated to each state in the Union public land scrip, in quantity equal to 30,000 acres for each senator and representative in Congress, "for the endowment, support, and maintenance of at least one college, whose leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanical arts, \* \* \* \* \* in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."

On account of this grant the State pays the University, semi-annually, interest at the rate of five per cent on about \$649,000.

## *Location chosen*

To secure the location of the University several counties entered into competition by proposing to donate to its use specified sums of money or their equivalent. Champaign County offered a large brick building in the suburbs of Urbana, erected for a seminary and nearly completed, about 1,000 acres of land, and \$100,000 in county bonds. To this the Illinois Central Railroad added \$50,000 in freight.

## *1867. Incorporation*

The institution was incorporated February 28, 1867, under the name of the Illinois Industrial University. It was placed under the control of a Board of Trustees, consisting of the Governor, the Superintendent of Public Instruction, and the President of the State Board of Agriculture, *ex officio* members, and twenty-eight citizens appointed by the Governor. The chief executive officer was called the Regent, and was made an *ex officio* member of the Board and the presiding officer of both the Board of Trustees and the Faculty. (See also 1873 and 1887 below.)

## *1867. Dr. Gregory Regent*

On March 12, 1867, John Milton Gregory, LL.D., was elected Regent of the University. On April 1, 1867, Dr. Gregory accepted the position and entered on his duties. He served as Regent until September 1, 1880.

## *1868. The University opened*

The University opened on March 2, 1868. The number of students enrolled was about fifty; the faculty consisted of the Regent and two professors. During the first term another instructor was added, and the number of students increased to 77—all young men.

During the first term instruction was given in algebra, geometry, physics, history, rhetoric, and Latin. Work on the farm and gardens or about the buildings was at first compulsory for all students. In March of the next year, however, compulsory labor was discontinued, save when it was to serve as a part of instruction.

## *1868-69. The first laboratories*

During the autumn of 1868 a chemical laboratory was fitted up, and laboratory work in botany was begun the following year.

### 1870. *Pioneer shop instruction*

In January, 1870, a mechanical shop was fitted up with tools and machinery, and here was begun the *first shop instruction* given in any American university. In the summer of 1871 the Wood Shops and Testing Laboratory (burned on June 9, 1900) were erected and equipped for students' shop work in both wood and iron.

### 1870. *Women admitted*

On March 9, 1870, the Trustees voted to admit women as students. In the year 1870-71 twenty-four availed themselves of the privilege. Since that time they have constituted from one-sixth to one-fifth of the total number of students.

### 1873. *First reorganization of the Board of Trustees*

At this time the number of members was reduced from thirty-two (see 1867 above) to eleven—the Governor and the President of the State Board of Agriculture, *ex officio*, and nine others, who were still appointed by the Governor. Beginning at this time also, the President of the Board has been chosen by the members from among their own number for a term of one year. (See also 1887 below.)

### 1877. *Authority to confer degrees received*

According to the original State law, the usual diplomas and degrees could not be granted by the University; certificates showing the studies pursued and the attainments in each were given instead. The certificates proved unsatisfactory to the holders, and in 1877 the legislature gave the University authority to confer degrees and issue diplomas.

### 1880-81. *Dr. Peabody Regent*

In June, 1880, Regent Gregory's resignation was accepted to take effect September 1, 1880, and Selim Hobart Peabody, A.B., Ph.D., Professor of Mechanical Engineering and Physics, was made Regent *pro tempore*. At the next annual meeting, in March, 1881, he was elected Regent.

### 1885. *Change of name*

In this year the General Assembly changed the name of the institution from the *Illinois Industrial University* to the *University of Illinois*.

### 1885. *The State Laboratory of Natural History transferred to the University*

Merged in the State Natural History Survey in 1917. See page 417.

### 1887. *Second reorganization of the Board of Trustees*

In 1887 a law was passed making membership in the Board elective, at a general State election, and restoring the Superintendent of Public Instruction as an *ex officio* member. There were then, therefore, three *ex officio* and nine elective members. (For the previous organization of the Board see 1867 and 1873 above. See also 1919 below.)

### 1887. *The Agricultural Experiment Station established at the University*

See page 405.

### 1890. *Additional Federal endowment*

In 1890 the Congress of the United States made further appropriations for the endowment of the institutions founded under the act of 1862. Under this enactment each such college or university received the first year \$15,000, the second year \$16,000, and in each succeeding year a sum larger by \$1,000 than the amount of the preceding year, until the amount reached \$25,000; this sum was to be paid yearly thereafter.

*1891. Dr. Burrill Acting Regent*

In June, 1891, Regent Peabody's resignation was accepted, to take effect September 1, and in August, Thomas Jonathan Burrill, A.M., Ph.D., Professor of Botany and Horticulture, was appointed Acting Regent. Dr. Burrill served in this capacity until September, 1894.

*1892. The Graduate School*

Beginning with this year, graduate work was undertaken under the name of the Graduate School, but without the organization of a separate faculty.

*1894. The Summer Session*

The first Summer Session of the University was authorized by a vote of the Trustees on March 3, 1894, and was opened in June of that year.

*1894. Dr. Draper President*

On April 13, 1894, Andrew Sloan Draper, LL.D., was elected Regent. He accepted May 10, 1894. On August 1, his title was changed to President. Dr. Draper entered on his duties on August 1, 1894. He served until June, 1904.

*1896. The School of Pharmacy*

On May 1, 1896, the Chicago College of Pharmacy, founded in 1859, became the School of Pharmacy of the University of Illinois.

*1897. The College of Medicine*

Negotiations looking to the affiliation of the College of Physicians and Surgeons of Chicago with the University, which had been going on for several years, were concluded by the Board of Trustees March 9, 1897. Accordingly, the College of Physicians and Surgeons became, on April 21, 1897, the College of Medicine of the University of Illinois. (The College of Medicine was discontinued on June 30, 1912, but was re-opened on February 12, 1913.)

*1897. The School of Music*

By vote of the Trustees on June 9, 1897, the department of music, which had been reorganized and enlarged in 1895, was erected into the School of Music, with a separate faculty and organization.

*1897. The State Water Survey authorized*

See page 411.

*1897. The Library School*

In 1897 the School of Library Economy, which had been established in 1893 at the Armour Institute of Technology in Chicago, was transferred to the University, the Director of that school was appointed Librarian of the University Library, and the Library School was opened.

*1897. The College of Law*

Pursuant to an action of the Board of Trustees, taken December 8, 1896, the School of Law was organized, and was opened September 13, 1897. The course of study covered two years, in conformity with the then existing requirements for admission to the bar of Illinois. In the following November the Supreme Court of the State announced rules relating to examinations for admission to the bar which made three years of study necessary, and the course in the Law School was immediately rearranged on that basis. On February 9, 1900, the name of the School of Law was changed, by vote of the Board of Trustees, to *College of Law*.



1899. *The State Entomologist's Office permanently established at the University.* Merged in the State Natural History Survey in 1917.

See page 410.

1900. *Courses in Business Administration*

In 1900 the General Assembly made an appropriation for the establishment of courses of training for business life, and, in accordance with that action, the Trustees approved the organization of the Courses in Business Administration. (See also 1915 below.)

1901. *The College of Dentistry*

In accordance with an action taken by the Board of Trustees on March 12, 1901, a School of Dentistry was organized as a department of the College of Medicine. The School was opened October 3, 1901. The name was changed to *College of Dentistry* on April 27, 1905. (The College of Dentistry was discontinued on June 30, 1912, but was re-opened on October 1, 1913.)

1903. *The Board of Examiners in Accountancy created*

See page 414.

1903. *The Engineering Experiment Station established*

See page 408.

1904. *Dr. James President*

On March 9, 1904, President Draper's resignation was accepted, to take effect July 1. On August 23, 1904, Edmund Janes James, Ph.D., LL.D., was elected President. He accepted on August 26, 1904, and entered on his duties in the fall of that year.

1905. *The School of Education*

By a vote of April 27, 1905, the Board of Trustees established the School of Education, to provide for the professional training of teachers. (See also 1918 below.)

1905. *The State Geological Survey established.*

See page 412.

1906. *Adams Fund*

This fund was created by an act of Congress dated March 16, 1906, and provides for an appropriation of \$5,000 for the year ending June 30, 1906, and an increase of \$2,000 a year for five years. The present appropriation to the University under the Adams Act, is, therefore, \$15,000 a year. Its use is limited to the necessary expenses of original research and experimental work in agriculture.

1907. *Nelson Fund*

This fund was created by an act of Congress dated March 4, 1907, and carried with it an appropriation of \$5,000 for the fiscal year ending June 30, 1908, and an annual increase of \$5,000 for four years. The present appropriation to the University under the Nelson Act is, therefore, \$25,000 per year. Its uses are identical with those of the Morrill Fund.

1906-7. *The School of Railway Engineering and Administration*

On January 30, 1906, the Board of Trustees created in the College of Engineering a department of railway engineering; on January 22, 1907, supplementing that action, it established the School of Railway Engineering and Administration. (See also 1917.)

*1906-7. The Graduate School organized as a separate faculty*

The General Assembly appropriated \$50,000 for the Graduate School, and the Executive Faculty of that school was organized.

*1911. The Mill Tax*

The General Assembly passed a law providing that in the year 1912, and annually thereafter, the proceeds of a tax of one mill for each dollar of the assessed valuation of the taxable property of the State should be set apart as a fund for the maintenance of the University.

*1911. Cooperative Investigation of Illinois Coal Problems*

See page 415.

*1912. The Colleges of Medicine and Dentistry discontinued*

The Colleges of Medicine and Dentistry were discontinued on June 30, 1912.

*1913. The Colleges of Medicine and Dentistry re-opened.*

On February 12, 1913, the Board of Trustees accepted the gift of the capital stock of the College of Physicians and Surgeons, donated to the University by the alumni and other friends of medical education in Chicago, and the College of Medicine was re-opened.

The College of Dentistry was re-opened on October 1, 1913.

*1913. The College of Liberal Arts and Sciences*

In this year the College of Literature and Arts and the College of Science were united to form the College of Liberal Arts and Sciences.

*1915. The College of Commerce and Business Administration*

The Courses in Business Administration, organized in 1900, were erected into a separate College of Commerce and Business Administration.

*1917. The School of Railway Engineering and Administration suspended*

In 1917, the activities of this school were suspended because the leading members of its faculty were called away for war service.

*1918. The University Press*

On June 1, 1918, the Board of Trustees authorized the organization of the University Press, to have charge of the editorial, printing, and publishing activities of the University. (See page 391.)

*1918. The College of Education*

On June 1, 1918, the Board of Trustees voted to erect the School of Education into a separate College of Education.

*1919. Third Reorganization of the Board of Trustees*

In 1917, the General Assembly passed a law reorganizing the administration of the State, by virtue of which the office of President of the State Board of Agriculture was abolished on January 1, 1919. There are now, therefore, eleven members, two *ex officio* and nine elective.

# EQUIPMENT

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## BUILDINGS AND GROUNDS

The land occupied by the University embraces 238 acres, besides a farm of 991 acres. There are at the present time some fifty-three buildings on the campus.

### Liberal Arts

*University Hall* (erected 1873) is the "old main building" of the University. It occupies three sides of a quadrangle, and is five stories in height. It is devoted to class rooms and offices.

*Lincoln Hall* (erected 1911) has a frontage of 230 feet. The exterior is brick, stone, and terra cotta. The building provides for the advanced work of the departments of the classics, English, Romance languages, Germanic languages, history, economics, education, political science, sociology, and philosophy. The first three floors provide, in addition to the ordinary class and consultation rooms, seminar libraries and conference rooms. On the fourth floor are research rooms and two museums, the Museum of Classical Art and Archeology, and the Museum of European Culture.

### General Science

*The Laboratory of Physics* (erected 1909) is a three-story fireproof brick building trimmed with Bedford limestone. The length is 178 feet and the depth of the wings is 125 feet. The lecture room has a seating capacity of two hundred sixty-two. A one-story annex, 78 by 28 feet, contains the ventilating and heating fans and the machine shop of the department. The total available floor area, exclusive of the basement, is about 60,000 square feet. The large laboratories and the recitation rooms are mostly in the west wing. The east wing contains about thirty smaller laboratories for advanced experimental work. The department of blue printing and photography occupies rooms on the top floor of the building. Gas, distilled water, compressed air and vacuum, and direct and alternating electric currents of a wide range in amperes and in volts are available in all parts of the building.

*The Chemistry Laboratory* (original structure erected 1901-2; addition 1914-15) is a brick building. The original structure is of slow burning construction, and the addition is fireproof. The total available floor area is about 164,000 square feet. The ground plan is a hollow square, the extreme dimensions of which are 230 feet along the front, and 200 feet along the sides. The center court contains the lecture amphitheater, which seats 390. The side wings of the building contain the general laboratories, while the center portions of both old and new structures are occupied by offices, class and seminar rooms, library, museums, supply rooms, and research laboratories. The main store room is in the basement under the lecture room. In this building are also located the offices and laboratories of the State Water Survey and the department of bacteriology.

*Natural History Hall* (old part erected 1892; addition 1909) covers a ground area of 135 feet by 275 feet. It is occupied by the departments of botany, entomology, zoology, physiology, geology, and mathematics, and the offices of the State Natural History Survey and the State Entomologist. A fireproof museum 51 feet by 63 feet in size, equipped with fireproof and dustproof cases, occupies the center of the building.

*The Botany Annex* (erected 1914) is a greenhouse laboratory covering 5,000 square feet, divided into compartments that are severally provided with devices for controlling humidity and temperature within close limits for exact experimentation in the fields of plant physiol-

ogy and pathology. To this laboratory is attached a reconstructed two-story dwelling, giving working and class rooms for use in connection with the experiments conducted under glass

*The Vivarium* (erected 1915-16) occupies the block south of the Illinois Traction System tracks, between Wright and Sixth streets, the main facade of the building being toward Healey street. The scheme involves a main building containing eight laboratories, one office, and store rooms, with supplementary greenhouses at each end, and a head house serving two greenhouses, together with two screened houses. The main building is a brick structure, two stories high, connected to the head house by a one-story passage from the main corridor. The building is occupied by the departments of zoology and entomology

*The Entomology Building* (erected 1905 for the use of the State Entomologist and his staff) is a two-story building 48 by 20 feet, with basement storerooms, and with two insectary wings of greenhouse construction, each 25 by 20 feet. It contains the office of the horticultural inspector, a stenographer's room, rooms for the assistant inspectors and insectary assistants, and a large fireproof vault. The glass-covered wings are equipped for experimental entomology and life-history studies.

*The Astronomical Observatory* (erected 1896) is a brick building with extreme dimensions of 75 by 55 feet. It has three wings and is surmounted by a dome 25 feet in diameter, which houses the 12-inch refracting telescope. An adjacent building with a 15-foot dome, erected in 1914, contains a 30-inch short focus reflector.

#### Commerce and Business Administration

*The Commerce Building* (erected 1912) is a fireproof building three stories high, 153 feet on the front and 60 feet deep, with a one-story annex containing a lecture room 48 feet square. The building has a total floor area of about 29,000 square feet; it provides class rooms, offices, and laboratories for the work in business administration. The exterior first story finish is buff Bedford stone; the second and third stories are of brick with carved stone trimmings and cornice. The roof is of tile, and the interior trim is of dark oak. The Administration Building (see page 54) is a second unit of this building and will eventually be occupied by this College.

#### Education

*The Education Building* (erected 1917-18) is a fireproof structure of reinforced concrete, faced with Bedford limestone, and is of collegiate Gothic design. It occupies a ground area 69 by 193 feet. It will be occupied in the autumn of 1919 by the College of Education as a model high school; the college furnishing the corps of instructors, under whom the students in the school receive their practical teaching experience. The first floor contains locker and toilet rooms for boys and girls, rooms for manual training, mechanical drawing, sewing and domestic science, as well as general class rooms and the offices of the principal. On the second floor is the library, rooms for the commercial department, and various class rooms. Chemistry, physics, biology, and agriculture take up the greater part of the third floor, the remainder being devoted to class rooms. This building is the first unit of a structure which will occupy the entire block.

#### Engineering

*Engineering Hall* (erected 1894) is a four-story building, with a frontage of 200 feet, a depth of 76 feet on the wings and 138 feet on the center, and a floor area of 47,000 square feet. The first and second floors are occupied by the offices and recitation rooms, and the instrument and drafting rooms of the departments of civil engineering and municipal and sanitary engineering. The engineering lecture room, on the second floor, has a seating capacity of two hundred twenty-five. The third floor is occupied by the offices of the

Dean of the College of Engineering and Director of the Engineering Experiment Station, and by offices, recitation, and drafting rooms of the departments of mechanical engineering and architecture. All of the fourth floor is occupied by the department of architecture.

*The Electrical Engineering Laboratory* (erected 1898) is a two-story brick building with floor area of 18,000 square feet. The basement contains the departmental shop, the storage battery room, the electric furnace room, and rooms for electrical research. The first floor contains the undergraduate laboratory, the instrument room, the high potential laboratory, and the drafting, lecture, and recitation rooms. The second floor contains the photometric laboratory, the offices, the departmental library, and a room used by the Electrical Engineering Society.

*The Mechanical Engineering Laboratory* (erected 1905, remodeled 1917) is a brick building 120 by 182 feet. In 1916 the interior was changed to provide for a basement with an elevated or mezzanine operating floor, giving a floor area for laboratory purposes of 28,000 square feet. On the mezzanine floor is mounted all of the principal equipment of the laboratory; in the basement auxiliary apparatus is housed. The front section is two stories high and together with the two-story addition to the south contains offices, lecture and computation rooms, a lavatory, and an instrument room. The main laboratory is divided into three bays, each approximately 40 feet wide. The middle bay is provided with a ten-ton, three-motor traveling crane, and the north bay with a five-ton hand-operated traveling crane. In the basement two flumes, each three feet deep by four feet wide and 120 feet long, together with a storage reservoir having a capacity of 7,000 gallons, provide for the measurement and storage of water.

*The Laboratory of Applied Mechanics* (erected 1901-2) is a brick building having a floor area of 16,000 square feet. The front part contains the materials testing laboratory, and the rear wing the hydraulics laboratory.

*The Road Materials Laboratory* (erected 1910) is a two-story brick addition to the Mechanical Engineering Laboratory, containing the laboratories and certain recitation rooms and offices of the department of civil engineering, which are closely associated with the work of testing materials used in road construction, and with researches in the development of such materials.

*The Mining Engineering Laboratory* (erected 1912) is a one-story brick building, having a floor area of 5,700 square feet. It is divided into five units. (1) Coal washing and preparation; (2) Ore dressing and metallurgy; (3) Mining, including blasting and explosives; (4) Chemical analysis and sampling; (5) Gas analysis, safety lamps and ventilation.

*The Ceramic Engineering Kiln House* (erected 1912) connects with the ceramic engineering building. It has a floor area of 11,200 square feet, and contains the kilns, furnaces, and heavy machines for working clays.

*The Ceramic Engineering Building* (erected 1915-16) is a three-story structure, 188 by 65 feet, of fireproof construction, built of texture brick and polychrome terra cotta. The front of the building is decorated with colored tile panels. The roof is of Spanish tile, and the floor of the halls and corridors of clay tile. The structure is intended to present modern achievement in the use of ceramic structural materials. The third floor is occupied by the State Geological Survey and about one-third of the first floor by the department of applied mechanics. The main portion of the building is utilized by the recitation rooms, laboratories, and offices of the department of ceramic engineering.

*The Locomotive Testing Laboratory* (erected 1912) is a brick fireproof building 117 by 42 feet, connected by a spur with the Illinois Traction System tracks. It houses a locomotive testing plant, which consists of supporting wheels on which rest the drivers of the locomotive to be tested, a dynamometer to which the locomotive drawbar is attached, and which measures the tractive force exerted by the locomotive, water brakes for absorbing the power developed by the locomotive, and other auxiliary apparatus. The exhaust gases pass

through an asbestos board duct to a large fan which forces them through a reinforced concrete cinder separator; the separator removes the cinders and discharges the gases into the air through a brick stack eight feet in diameter.

*The Transportation Building* (erected 1912) is a three-story fireproof building of brick trimmed with stone. The building is 65 by 189 feet and the total floor area is 34,225 square feet. The first and second floors of the building are occupied by the departments of railway and mining engineering, and the third floor by the department of general engineering drawing.

*The Metal Shops* (erected 1902) occupy a one-story brick building with a floor area of 12,000 square feet, containing office rooms, a machine shop, and a forge shop. The machine shop is 48 by 140 feet. Power is supplied by a twenty-horse-power electric motor. A three-ton traveling crane of ten-foot span covers the center of the floor for the entire length.

*The Wood Shop* (erected 1901-2) and the *Foundry* (added 1904) occupy a brick building which has a floor area of 16,000 square feet. The wood shop contains a bench room, lathe room, machine room, and various smaller rooms for lectures and exhibition purposes. The foundry has a molding floor 35 by 80 feet, traversed by a five-ton traveling crane, and a basement room for the storage of materials.

### Agriculture

*The Agriculture Building* (erected 1900) consists of four separate structures, built around a court and connected by corridors. The court was enclosed in 1912 and divided into five large class rooms. The main building, three stories high, contains offices, class rooms, and laboratories for the departments of agronomy, animal husbandry, dairy husbandry, and horticulture; the chemical laboratory of the Experiment station; administration rooms; and assembly room (Morrow Hall) with a seating capacity of 500. The other three buildings are two stories high; one is for dairy manufactures, one for farm crops, and one for class rooms and laboratories. These buildings are of stone and brick, roofed with slate, and contain 113 rooms and a total floor space of about two acres.

*The Agronomy Building* (erected 1904-5) is a brick and slate structure 50 by 100 feet. It contains a field laboratory and storage room for crop work.

*The Agronomy Greenhouse* (erected 1900, rebuilt 1912) consists of two glass structures covering a total floor space of 6,500 square feet, and a service building equipped with research and photographic laboratories.

*The Agronomy Barn and Implement Shed* (barn 1915; shed 1918) are wooden structures respectively 26 by 70 feet, and 33 by 100 feet, designed as service and storage buildings for the field work of the department of agronomy.

*The Animal Husbandry Cattle Feeding Plant* (first unit erected 1917) is of brick and frame construction with a tile roof, located on the axis of Fourth Street, south of the "Farm Lane." There are eight silos built in a circle to enclose a feed room. The two to the south are 16 by 70 feet and the others are 12 by 40 feet. The plant will also be used as a storage place for feed for the animal husbandry department. In the section not yet built the upper stories will be constructed as an elevator with large grain bins, where grain can be elevated, preparatory to grinding, shipping, or feeding. There will be a corn crib with a capacity of 12,000 bushels.

*The Farm Mechanics Building* (erected 1906-7) is a three-story brick structure, containing class rooms, offices, lecture rooms, drafting room, library, laboratories, and tool and storage rooms. The third floor furnishes storage room for the greater part of \$16,000 worth of farm machinery, lent the College by manufacturing companies and used for laboratory work. The facilities afforded by this building, with its equipment make possible

the assembling, testing, and adjusting of all the important machines used in farm operations.

*The Pure Bred Dairy Cattle Barn* (erected 1891, remodeled 1895 and 1901) consists of a main two-story wooden structure 104 by 48 feet, a wing to the east 74 by 30 feet, and a shed for young stock at the south 72 by 30 feet. About 40 head of milking cows in addition to young stock and bulls are accommodated. Two Gurler silos are at the south and a wooden stave silo at the east.

*The Beef Cattle Building* (erected 1904-5) is a one-story structure of brick and slate, trimmed with stone, 217 feet across the front, with a wing at either end 33 by 49 feet; the central portion rises two stories and is used for the storage of feed. Other portions of the building are used as quarters for the breeding herd, and will accommodate about 100 head of cattle.

*The Experimental Dairy Barns* (erected 1912) comprise three round barns, the largest being 70 feet in diameter with a reinforced concrete silo in the center, a semi-detached rectangular structure 40 by 70 feet with a Grout silo adjacent, and a small dairy house and shop 26 by 32 feet. The barns are of frame construction on brick walls with solid floors of the mill type of construction, and contain feed rooms, hay lofts, and other accommodations for the experimental dairy herd. The dairy house is of frame construction, two stories in height, and contains office, shop, coal room, dairy room, and four sleeping rooms for employees.

*The Sheep Barn* is a wooden structure consisting of a main barn 36 by 90 feet, and a shed, opening to the south, 25 by 100 feet in size. A six-foot aisle, lined by pens on each side, runs through the center of the barn. This building besides accommodating the University flock is used for experimental work.

Other buildings on the South Farm for the accommodation of live stock are three horse barns and the piggery.

*The Stock Pavilion* (erected 1913) is a fireproof building 54 feet high on the front and 148 feet deep with circular ends 92 feet in diameter and 20 feet high. The total ground area is 30,000 square feet, and the show arena is 216 feet long and 65 feet wide. Seats of concrete provide accommodations for 2,000. The arena may be divided into three parts, giving three separate judging rooms. The building also contains class rooms and offices. The exterior is of brick and terra cotta, renaissance in design, the frieze being enriched with medallions of animal heads.

*The Genetics Building* (erected 1915-16) is a one-story brick structure (located on Farm Lane and Mathews Avenue) housing the laboratories, offices, and animal rooms of the department of genetics. The work carried on in this building is done principally by graduate students.

*The Horticulture Building* (erected 1904-5) is a structure of brick and slate trimmed with stone, approximately 50 by 100 feet in size. It is used as a field laboratory for horticultural tests, and contains sorting and storage rooms and a laboratory for the mixing of spraying materials and other operations in connection with the horticultural work.

*The Horticulture Greenhouse Group* (erected 1912-13) includes (1) a floricultural group and (2) a vegetable and plant breeding group.

(1) *The Floricultural Greenhouse Group* (erected 1912-13) consists of a two-story and basement service building 93 by 37 feet, and the following glass structures: four houses each 105 by 28 feet, three houses each 105 by 35 feet, one corridor house 139 by 10 feet, one storage house 50 by 12 feet, and a palm house 80 by 40 feet. The service building is of hollow tile and cement construction, and contains laboratories, lecture room, sales room, offices, and seminar room, as well as potting, storage, and work rooms.

(2) *The Vegetable and Plant Breeding Greenhouse Group* (erected 1912-13) consists of a glass house for vegetable growing 105 by 28 feet, two houses for plant breeding each

approximately 80 by 30 feet, a wire house 80 by 30 feet, and a two-story and basement service building 82 by 36 feet, containing laboratories, work rooms, class rooms, offices, and storage rooms. The type of construction of this building is the same as that of the floriculture service building.

#### Law

*The Law Building* (erected 1878; remodeled 1902 and 1912) is the second oldest building in the University group. It has two stories and a basement. The upper floor contains the Law Library, the students' conference room, the private offices of the members of the law faculty, and the Moot Court Room, a model court room with a seating capacity of four hundred. On the main floor are the recitation rooms, the Dean's offices, and the faculty room. In the basement are the lockers, the students' reading room, and a court room for the Law Clubs.

#### Music

*The Smith Memorial Hall* (erected 1918-19) is a fireproof building of brick and stone exterior, to be occupied by the School of Music. The area occupied is 126 by 163 feet, extending in height through a basement, two stories, and attic. The basement is occupied by plenum chambers, machinery, and dressing rooms. On the first floor are the Director's suite, two class rooms, and seven studios, together with the first floor of the recital hall. The second floor contains the Memorial Room dedicated to the donor, Captain Thomas J. Smith and his wife, Tina Weedon Smith, to whom the building is dedicated as a memorial, and the Library, with a score trial room, and eleven studios. This floor also affords access to the balcony of the recital hall which with the first floor gives a total seating capacity of about 1,100 persons. The third floor contains forty-seven practise rooms, and a lecture room seating about 100. All studios and practise rooms are thoroly sound-proofed and insulated from one another.

#### Buildings for General University Use

*The Administration Building* (erected 1914-15) is a three-story and basement fireproof building of brick and stone. It is 153 by 66½ feet with a one-story annex, 48 by 42 feet, with a total floor area of 36,000 square feet; it contains the rooms of the Board of Trustees and the offices of the President, the Registrar, the Comptroller, the Supervising Architect, the Dean of Men, the High School Visitor, the Adviser to Foreign Students, and the Alumni Association, and the Information and Stenographic Bureau. This building is the second unit of the Commerce Building, and will eventually be occupied by that College.

*The Library Building* (erected 1896-97; an addition to the stack room erected 1914; further addition erected 1918) is modern Romanesque in style, is built of Minnesota sandstone, and measures 167 by 141 feet, with a tower 132 feet high. The first floor, or basement, contains the rooms of the catalog and order departments, the bound newspapers, and the University Station post office. The second, or main floor, contains the general reference room, the periodical reading rooms, a small conference room, and the delivery room, which opens into the second story of the stack. The third floor contains the study room, lecture rooms, and office of the Library School, faculty study room, and the office of the librarian. The five-story book stack is a rear wing to the building, separated from it by a fireproof wall. The delivery room is open to the roof and is lighted by a dome of art glass; the lunettes are decorated with frescoes symbolic of the four older colleges of the University—Literature and Arts, Science, Agriculture, and Engineering.

The latest addition is 37½ by 79 feet on the ground, and contains four stories of stacks. Above this is a room covering the entire area of the building, which will be used as a work room. This addition also contains an unpacking room, a storage room, and an elevator tower.



*The Auditorium* (erected 1907-8) is a brick and stone building for general meeting purposes. It contains an auditorium seating about 2,200, a memorial vestibule, and a four-manual organ. All general University exercises and convocations are held in this building.

*The Men's Gymnasium* (erected 1901) is a three-story building of stone and pressed brick, 100 by 150 feet. On the first floor there is a swimming pool, 26 feet wide, 75 feet long, and 8 feet deep at the lower end, lined with white enamel bricks. The water is filtered and sterilized by continuous circulation through a violet ray sterilizer. This floor contains also the general locker room, which is fitted up with all-metal lockers, and with shower bath, and steam baths; rooms for the University Athletic teams; a room for visiting teams; a special dressing room for members of the faculty; and offices for the physical director and the instructors in athletics. The entire second floor is one room, fitted up with modern appliances for gymnastic exercises. The third floor contains an elevated running track, 15 laps to the mile, banked on the turns to secure speed and comfort in running.

*The Gymnasium Annex* (erected 1889-90) has a clear floor space of 15,000 square feet in one hall, while the addition (erected 1918) gives an additional clear area of about 7,500 square feet.

*The Armory* (erected 1914-15) comprises a drill room with a clear area of 200 by 400 feet and a height of 98 feet at the center, the roof being carried by fourteen three-hinged steel arches. The sides are of hollow tiles and the ends, supported by columns, are of steel, glass, tile, and concrete, with wood frames and sashes. The drill floor is sufficient area to permit the maneuvering of an entire battalion of the cadet brigade. Provision has been made for the addition of the balcony around the drill floor with seats for 3,000 and for the addition of three-story facades along the sides flanked by towers at each end. This will provide space for company rooms, locker rooms, shooting tubes, and class rooms.

*The Woman's Building* (erected 1905; addition 1912) is in the New England colonial style of architecture, of reddish brown brick, with white stone trimmings. The central part of the structure is the women's gymnasium. On the lower floor there are swimming tank, lockers, dressing rooms, and baths. The upper floor is devoted to the main gymnasium, which is 92 by 50 feet. The north wing of the building is given to the department of home economics, and the south wing provides rooms for the social life of the women students. The addition is a three-story fireproof building and basement. It is 200 feet long on the front and 83 feet on each connecting wing, having 43,000 square feet of floor area. It has a large colonnade with towers on the front and two smaller colonnades on the north and south of the inner court. The addition is similar to the old building in finish. It has two halls for literary societies and a modern flat on the upper floor, and an institutional kitchen and large dining room on the second floor. There are also offices for the Dean of Women and the Director of the Courses in Home Economics, laboratories, social rooms, and space for the expansion of gymnasium work.

#### The President's House

*The President's House* (erected 1896) is a three-story frame building, in the colonial style. This building was assigned to the Y. M. C. A. for this year because their building was used as a barracks for the School of Military Aeronautics.

*The President's House* (acquired in 1917) is located at 1103 W. Nevada Street, Urbana. It is a two-story stucco building in the modern English style. It contains the usual living and service rooms of a ten-room house, and is featured by a large living-porch opening into an old fashioned trellis-walled garden.

#### Women's Residence Hall

*The Women's Residence Hall* (erected 1917) is located on Nevada Street north of and adjacent to the new athletic field for women. It is a three-story fireproof brick and stone

building of colonial design, U-shaped in plan, with a total frontage of 167 feet and wings running back 101 feet. It will accommodate 98 girls. There are both double and single rooms, a suite for the matron, an emergency hospital, and rooms for servants. The basement contains the kitchen and a large dining room in each wing overlooking the sunken garden in the court. There are also lockers and shower accommodations for non-resident girls who use the adjacent athletic field. In the center of the first floor there is a large living room with adjoining parlors. The wings on each side of the first floor are at a higher line and are occupied by student rooms. There is a large sleeping porch at the south end of each wing on each floor. This building has been used this year as a barracks for the School of Military Aeronautics and as an emergency hospital.

### The Isolation Hospital

*The Isolation Hospital* (erected 1908; reconstructed 1914 and 1917) has been used for its present purpose since 1914. It is a substantial one-story stucco building 27 by 103 feet. The basement contains a supply room, a laboratory, and a complete disinfecting suite, consisting of a formaldehyde room, a septic room, a sterilizing room, and a physicians' wash room, locker room, and sterile room. The first floor is divided into three separate ward units, each with a capacity of seven beds and having a nurse's room with bath, a diet kitchen, a linen closet, a bath room, and a private room for use as an observation room or for serious cases. The building is provided with all necessary sterilizing and antiseptic devices in connection with the wards, in addition to the equipment in the basement.

### Service Buildings

*The Central Heat and Power Plant* (old boiler house erected 1902; new boiler house, 1910 and 1914). The old boiler house is 55 by 120 feet and contains 960 horsepower of boilers which are used only as a reserve. The new boiler house, designed to be enlarged as necessity requires, is equipped with four 500-horsepower, B. & W. boilers with green chain grates. A power plant containing a 250-kilowatt Allis-Chalmers direct connected steam engine and dynamo, a 125-kilowatt direct connected Westinghouse engine and generator, and a 100-kilowatt Curtiss turbo-generator, together with the accessories necessary to a complete power station, supplies current for light and power to all parts of the grounds. The pipe lines of the heating system and the circuits for distributing electricity are carried from the central plant to the several buildings through brick and concrete tunnels and clay and concrete conduits. There are now 6,568 feet of tunnels and 10,105 feet of conduit for the distribution of steam, and 48,850 duct feet of conduit for the distribution of electricity. The new boiler and power plant provides temporary quarters for the electric test car of the department of railway engineering.

*The Pumping Station* of the University water-works is a brick building, 38 by 73 feet, connected with the central heating station. Four 8-inch wells 145 feet deep, one 12-inch well 148 feet deep, and a 24-inch well 170 feet deep, supply the University with water. A masonry reservoir provides for a fire-reserve supply. The pumps, tanks, and connections are arranged to give opportunities for experimental work, and also to vary the working conditions in the adjacent hydraulics laboratory. In this building is kept the equipment of the University fire department, including an electric automatic hose and chemical wagon.

### BUILDINGS IN CHICAGO

*The College of Medicine Building*, in which are housed all the departments except that of anatomy, is a brick and stone structure two hundred feet long by one hundred and ten feet deep and five stories high, fronting on three streets. The building contains three lecture rooms with a seating capacity of two hundred each; a clinical amphitheater with a

seating capacity of over three hundred; an assembly hall with a seating capacity of seven hundred; besides recitation rooms. It also contains laboratories for physiology, chemistry, materia medica, therapeutics, and microscopical and chemical diagnosis, each accommodating from fifty to one hundred students at a time.

A three-story annex to the main building contains the laboratories used by the departments of pathology, bacteriology, and chemistry. All of these laboratories have outside light and are furnished with work tables, desks, lockers, and the necessary apparatus. There is a supply of microscopes, lenses, and oil immersions, and a projection apparatus for the illustration of lectures by means of stereopticon views.

*The College of Dentistry* is housed in a six-story building containing three amphitheaters, a clinical operating room, an infirmary, recitation rooms, the laboratories of gross anatomy and of prosthetic and operative dentistry, administrative offices, three dental depots, and four special laboratories, for research in histology and pathology, for anatomical modeling, for porcelain work, and for instructional and diagnostic work in radiography. The building adjoins that of the College of Medicine.

*The School of Pharmacy.*—In December, 1915, the University purchased for the School the property located at the corner of Wood and Flournoy streets and comprising eight city lots with two large brick buildings, connected by a fireproof central stairway tower. The new quarters were occupied in June, 1916.

## LIBRARIES

(For the Library Staff see page 31.)

The University Library includes all the books belonging to the colleges and schools of the University which are situated in Urbana and also the libraries of the College of Medicine and the School of Pharmacy in Chicago.

On March 1, 1919, the contents of the several libraries were as follows:

In Urbana:	Volumes	Pamphlets	Maps
General library, including departmental collections.....	407,783	49,318	2,042
State Laboratory of Natural History library.....	10,206	50,470	34
State Geological Survey library.....	2,325	5,200	975
In Chicago:			
College of Medicine library.....	20,321	3,340	.....
Pharmacy library.....	3,550	1,200	.....
Total in the University.....	444,783	109,528	3,051

The Library is housed, for the most part, in the Library Building, and is for the use of the whole University. The officers of instruction and administration of the University, the graduate students, and the members of the senior class have direct access to the shelves; other students may have this privilege on the recommendation of their instructors. All students have the direct use of 10,700 volumes in the reading rooms, and in addition advanced students have the use of the seminar libraries. About 3,000 periodicals are currently received.

As a part of the Library are included several special collections: *The University of Illinois collection*, including printed material illustrating the history of the University: about 300 volumes. *College Publication collection*, comprising the catalogs, announcements, reports, studies, etc., of other educational institutions: about 5,500 volumes. *Thesis collection*, a complete file of the original copies of the theses presented for graduation from the University, bound and filed by years: 2,160 volumes. *The Collection of School Reports*, a cataloged collection of school reports, courses of study, and other documents published by public school authorities throughout the United States. *The Dziatzko Collection of Library Economy*, the entire library of Karl Dziatzko, librarian of Göttingen University: 300 volumes, 250 pamphlets, bought in 1905. *The Dittenberger Collection of the Classics*,

the entire library of Wilhelm Dittenberger, professor of Classical Philology in the University of Halle: 5,600 items, bought in 1907. The *Heyne collection*, the philological library of Professor Moritz Heyne of the University of Göttingen: about 5,000 items, principally on German philology and literature, bought in 1909. The *Karsten collection*, principally on French and German philology and literature, the library of the late Professor Gustaf E. Karsten, presented by Mrs. Eleanor G. Karsten. The *Grober collection*, the entire library of the late Professor Gustav Grober, of Strasburg: 6,300 titles, principally on the Romance languages, purchased in 1912. The *Vahlen collection*, the entire classical library of the late Professor Johannes Vahlen, of Berlin: 10,000 volumes, purchased in 1913. The *Aron collection*, the pedagogical library of the late Dr. R. Aron, of Berlin: 20,000 volumes, purchased in 1913. The *Carl Martin James collection*, 1,030 volumes relating to statistics and similar subjects, presented in 1915 by President Edmund J. James. The *D. C. Greene collection*, 219 volumes of books and newspapers relating to Japan, presented in 1915 by Professor E. B. Greene. The *Rathermann collection*, of German-American literature and history: 7,000 volumes, purchased in 1915. The *Amanda K. Cesad collection*, relating to history, economics, politics, and education: 1,732 volumes, presented in 1916 by President Edmund J. James. The *Constance Barlow-Smith collection*, of musical scores: manuscript, books, and portraits, presented in 1916 by Mrs. Constance Barlow-Smith.

A number of departmental and college libraries and reading rooms are maintained in various buildings on the campus; these libraries do not necessarily contain all the books in the respective subjects. In some instances they are primarily for the use of the graduate students and advanced undergraduate students in the departments using the respective buildings. The principal departmental libraries and reading rooms are the following:

<i>Name of Library</i>	<i>Location</i>	<i>Volumes</i>
Philosophy, Psychology, and Education	Lincoln Hall	15,900
Classics	Lincoln Hall	22,986
Modern Languages	Lincoln Hall	27,000
English	Lincoln Hall	16,400
History and Political Science	Lincoln Hall	20,000
Economics and Sociology	Lincoln Hall	24,000
Natural History	Natural History Building	22,377
Law	Law Building	22,000
Commerce Reading Room	Commerce Building	1,920
Architecture, Ricker Library of	Engineering Building	4,700
Agriculture Reading Room	Agricultural Building	9,000
Chemistry	Chemistry Building	10,500
Physics	Physics Building	1,490
Mathematics	Natural History Building	5,610
Engineering	Engineering Building	8,100

*Mason Library of Western History.* The library of western history collected by Edward G. Mason, Esq., long president of the Chicago Historical Society, is in the Public Library of the city of Champaign, and is accessible to students in the University.

## MUSEUMS AND COLLECTIONS

### College of Liberal Arts and Sciences

#### *Liberal Arts Group*

*Art.*—A collection of casts, photographs, and engravings presented to the University in 1876 by citizens of the community has, for want of a suitable gallery, been placed in different buildings on the campus. Eight large statues are in the Auditorium foyer. Numerous pieces are now in the studios of the department of art and design in University Hall, and others are in the corridors and class rooms of University Hall, Lincoln Hall, Natural History Hall, and the Library. A collection of eighty-one German and Japanese prints purchased by the department of art and design from the St. Louis Exposition in 1905 is displayed in the rooms of the department of art and design.

Other collections of value to art students, consisting of a number of casts of Moorish,

Spanish and German ornament and miscellaneous casts, models, prints, and drawings, are placed in the studios and corridors of the department of art and design.

*Classical Archeology and Art.*—This museum is located in Rooms 402, 404, and 406 Lincoln Hall, and contains casts and photographs of Greek and Roman sculpture; colored reproductions of ancient painting; many objects from the finds of the Egypt Exploration Fund, received through the generosity of Mr. W. G. Hibbard, Jr., of Chicago; numerous ancient coins, thirty Greek papyri; and other originals and models of Greek and Roman antiquities. About 2,200 photographs exhibit important historic sites and archeological remains and in addition there are available 1,900 slides belonging to the department of classics. The museum is open on Sunday, Wednesday, and Saturday afternoons.

*Oriental Museum.*—This museum occupies temporary quarters in 410 Lincoln Hall. Among its collections are 1,700 unpublished cuneiform tablets, the majority from Drehem, Umma, and Larsa, dating from the twenty-ninth to the twentieth century B. C., the others from the period of Nebuchadnezzar; a collection of Babylonian seals; fragments of Assyrian and Babylonian bricks with royal inscriptions; pottery, slate palettes, mummy case fragments, mummified sacred birds, and small objects from Egypt, the gift of Mr. W. G. Hibbard, Jr., of Chicago; a collection of Egyptian alabasters; a unique collection of squeezes or paper impressions of Hittite and Assyrian inscriptions, loaned by Dr. B. B. Charles of Philadelphia; squeezes of Phoenician inscriptions; a loan collection of pottery and pottery fragments representing the survey or two hundred ancient sites in the Near East; a loan collection of objects from Palestine, including two Hebrew manuscripts, models of domestic furniture, pottery, and prehistoric implements, a large number of unpublished photographs of the Near East.

*Education.*—In Room 417 University Hall is a collection of illustrative material from the manual training departments of various schools; photographs of school buildings; drawings and constructive work by pupils in the public schools; and the nucleus of a collection of apparatus for the school laboratory.

*European Culture.*—The Museum of European Culture is in the north wing of Lincoln Hall. It contains casts of Romanesque, Gothic, and Renaissance sculpture; color reproductions of masterpieces of painting; originals and facsimiles of medieval manuscripts, early printed books, and early maps of the world; originals and reproductions of medieval arms and armor and of prehistoric and early historic antiquities; theater models and prints of theaters and actors; peasant costumes; ship models; reproductions of early church ivory carving and metal work; about 350 coins; carbon prints of cathedrals and other photographic material; reproductions of runic inscriptions, early musical instruments, and other objects. The museum is open on Sunday, Monday, Wednesday, and Friday afternoons, and Saturday mornings.

### Science Group

*Botany.*—The herbarium contains over 100,000 sheets of mounted specimens. It is representative of the higher plants and fungi of Champaign County and of the State, and forms a collection for the general flora of the United States. Through the acquisition of the herbaria of the late Dr. Frederick Brendel of Peoria, the late Dr. W. Welsch of Mascoutah, the late Dr. Jacob Schneck of Mount Carmel, and Professor W. E. Andrews of Pana, and the earlier gift of the large personal herbarium of Mrs. Agnes Chase, its value for students of the Illinois flora has been largely increased. Because of the interest of the late Professor Burrill and his special students, Clinton, Earle, Seymour, and others, in the study of parasitic fungi, the part of the herbarium devoted to the representation of plants of this group is rich in material records of investigation. This group was greatly enriched by the Stevens collection of Porto Rican fungi, fourteen thousand numbers, presented by Professor F. L. Stevens in 1916. The published "exsiccatae" in this group are well represented. The recent gift of her personal set of the *Phycotheca Boreali-Americana* by Mrs. Mary S.

Snyder has increased the reference value of the herbarium for students of algae, of which it represents over 2,000 named species.

*Entomology.*—The entomology collections of the University include a reference series of 6,400 specimens, representing 1,600 common species; and the Bolter collection, given to the University by the executors of the estate of the late Andreas Bolter of Chicago, which now contains about 120,000 specimens representing over 16,000 species. The department has access, also, to the insect collections of the State Laboratory of Natural History, which contain 330,000 pinned insects and 26,000 vials and bottles of specimens in alcohol, mainly from Illinois.

*Geology.*—The department has adequate working collections which illustrate the principal phases of geology, including 10,000 hand specimens of rocks, 3,000 thin sections for microscopic study, over 12,000 minerals, and 60,000 fossils. In the corridors of the Natural History Building are exhibits of gems and precious stones, meteorites, polished ornamental stones, and specimens illustrating geologic structures, and the principal types of rocks, minerals, and fossils. The collections available for advanced students include those of Tyler McWhorter, Hertzner, and the greater part of the specimens collected both privately and for the State Geological Survey by A. H. Worthen.

*Geography.*—The geography collection consists of a complete file of the United States topographic maps; a collection of U. S. Geological Survey folios; combined contour maps representing the physiographic provinces of the United States; a collection of foreign topographic maps; rainfall and vegetation maps; relief models of all the continents and of smaller areas; and several thousand lantern slides.

*Zoology.*—The zoology collections illustrate the work in zoology and present a synoptical view of the zoology of the State. Most of them are placed in the museum room in the Natural History Building, and in adjacent corridors. The mounted mammals include a collection of the ruminants of the United States and representatives of the other orders of Mammalia except the Sirenia. The same orders are also represented by mounted skeletons. There are also a collection of mounted birds; the Barnum collection of bird's eggs; a collection of nests and eggs of Illinois birds; a series of mounted skins of larger species of cold-blooded vertebrates, both terrestrial and marine; mounted skeletons of typical representatives of the principal groups; alcoholic specimens; and casts; alcoholic specimens of all classes and orders of Mollusca, and dissections showing the internal anatomy of typical forms; several thousand shells, belonging to more than 2,000 species. (The collection of the Illinois aquatic species is nearly complete.) Several hundred dried specimens and alcoholics, and a series of Blaschka glass models of the lower invertebrates; several sets of Ziegler wax models and series of sections and other preparations showing the embryology of vertebrates and invertebrates.

In addition to the foregoing, the collections of the State Laboratory of Natural History are available for illustrative purposes, as well as for original investigation by advanced students.

### College of Commerce and Business Administration

*Commerce.*—For its courses in industrial economics and commerce the University has a collection of the materials of commerce; lanterns and several hundred slides; political and industrial maps; and diagrams and stereoscopic views illustrating phases of commerce and industry. Most of the articles constituting the commercial museum are the gifts of the Philadelphia Commercial Museum and of private manufacturing and mercantile establishments.

### College of Engineering

The several departments of the College of Engineering possess collections of historic materials drawn from their respective fields of practise. The department of railway

engineering maintains exhibits of track rails typifying practise since the beginning of railway construction; many details employed in car and locomotive construction, historic and modern; and an extensive collection of photographs and prints. The department of mechanical engineering is the custodian of a 600 h.p. vertical triple-expansion engine, direct connected to an electric generator, a type of machine in common use for power station service twenty years ago, and numerous machines of historical value together with a collection of exhibits of engineering apparatus. The departments of civil engineering and theoretical and applied mechanics maintain exhibits of tested specimens and structures. The department of architecture has a number of reproductions of fragments from historic architectural monuments. The mining museum has a comprehensive collection of models showing the methods of working coal and ore mines and both sectionalized and operating mining machines, and appliances. There is a collection of photographs and blue prints illustrating all phases of mining and metallurgical design and construction. Six stereoscopes with over one hundred views illustrate South African mining practise.

All such material occupies temporary locations. No especially appointed building designed for its reception has thus far been provided.

### **College of Agriculture**

The agricultural departments maintain collections illustrative of their work; among which are specimens of standard varieties of corn; wax models of fruit and vegetables; a horticulture herbarium; specimens of breeds of live stock; a collection of farm machinery; and exhibits of negatives and samples showing the progress of investigations with fruit, crops, and soils.

See further the description of the facilities for instruction and methods of work of the departments of agronomy, animal husbandry, dairy husbandry, and horticulture, under the College of Agriculture, in Part II.

### **Library School**

The School has made a collection of books and pamphlets on library science; of library reports and catalogs; of mounted samples showing methods of administration in libraries; and of books, photographs, and lantern slides illustrating the history of books, printing, and libraries.

# ADMINISTRATION

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## GOVERNMENT

The government of the University is vested by law primarily in a Board of Trustees, consisting of eleven members. The Governor of the State and the Superintendent of Public Instruction are members *ex officio*. The other nine members are elected by the people of the State for terms of six years; the terms of three members expire every second year.

The administration of the University is vested by the Board of Trustees in the President of the University, the Vice-President, the Senate, the Council of Administration, the Faculties of the several colleges, and the Deans of the colleges and Directors of the schools.

The President is the administrative head of the University.

The Senate is composed of the full professors and those other members of the faculty who are in charge of separate departments of the various colleges and schools. It is charged with the direction of the general educational policy of the University.

The Council of Administration is composed of the President, the Vice-President, the Dean of the Graduate School, the Deans of Men and Women, the Military Commandant, and the Deans of the several colleges. It constitutes an advisory board to the President, and has exclusive jurisdiction over all matters of discipline. The Council does not determine educational policy; but when any matter arises which has not been provided for by common usage or by rule of the Senate and cannot be conveniently laid over until the next meeting of the Senate, the Council may act on the same according to its discretion.

The Faculties of the colleges and schools of the University, composed of the members of the corps of instruction of these colleges and schools, have jurisdiction, subject to higher University authority, over all matters which pertain exclusively to these organizations.

The Dean of the Graduate School, the Deans of the several colleges, and the Directors of the schools are responsible for the carrying out of all University regulations within their respective departments.

## DEPARTMENTS AND COURSES

For the purpose of administration the University is divided into several colleges and schools. These are not educationally separate, but are interdependent and form a single unit.

The colleges and schools are as follows:

- I. The College of Liberal Arts and Sciences
- II. The College of Commerce and Business Administration
- III. The College of Engineering
- IV. The College of Agriculture
- V. The Graduate School
- VI. The Library School
- VII. The School of Music
- VIII. The College of Education
- IX. The School of Railway Engineering and Administration
- X. The College of Law
- XI. The College of Medicine
- XII. The College of Dentistry
- XIII. The School of Pharmacy



*The College of Liberal Arts and Sciences* offers curriculums in:—(1) philosophy and arts, including (a) the ancient classical languages; (b) the Romance languages; (c) the Germanic languages; (d) the English language and literature, including rhetoric and public speaking; (e) comparative literature; (f) comparative philology; (g) mathematics; (h) the political and social sciences: history, economics, political science, sociology; (i) philosophical subjects; philosophy, psychology, education; (j) art and design. (2) general science, affording opportunity to specialize in (a) astronomy; (b) geology, including mineralogy and geography; (c) physics; (d) chemistry; (e) botany, including bacteriology; (f) zoology; (g) entomology; (h) physiology. By the grouping of certain subjects students in this College are also offered opportunities for specific vocational and professional training as follows: (1) teaching and school administration; (2) journalism; (3) chemistry; (4) chemical engineering; (5) home economics and household administration; (6) library administration; (7) law (combined course); (8) medicine (combined course); (9) engineering (combined course).

*The College of Commerce and Business Administration* offers curriculums in:—(1) general business; (2) commercial and civic secretarial service; (3) banking; (4) insurance; (5) accountancy; (6) general railway administration; (7) railway transportation; (8) commercial teaching; (9) foreign commerce; (10) industrial administration; (11) commerce and law.

*The College of Engineering* offers curriculums in:—(1) architecture; (2) architectural engineering; (3) ceramic engineering; (4) civil engineering; (5) electrical engineering; (6) mechanical engineering; (7) mining and metallurgical engineering; (8) municipal and sanitary engineering; (9) general engineering physics; (10) railway civil engineering; (11) railway electrical engineering; (12) railway mechanical engineering.

*The College of Agriculture* offers curriculums in:—(1) agronomy; (2) horticulture, floriculture, and landscape gardening; (3) animal husbandry; (4) dairy husbandry; (5) home economics; (6) agricultural extension.

*Military science and physical education* are provided in all the undergraduate colleges in Urbana.

*The Graduate School* offers courses in:—philology, including the classical languages, Romance languages, Germanic languages, and English; mathematics; political and social sciences, including history, economics, sociology, and political science; philosophy, including psychology and education; physical sciences, including physics, chemistry, astronomy, and geology; biology, including botany, zoology, entomology, physiology, and bacteriology; engineering, including architecture, architectural engineering, ceramic engineering, civil engineering, electrical engineering, mechanical engineering, mechanics, mining engineering, municipal and sanitary engineering, and railway engineering; agriculture, including agronomy, animal husbandry, dairy husbandry, genetics, horticulture and floriculture, and home economics.

*The Library School* offers a professional curriculum of two years in preparation for librarianship, leading to the degree of Bachelor of Library Science.

*The School of Music* offers curriculums in vocal and instrumental music, leading to the degree of Bachelor of Music, and provides training in public school methods in music.

*The College of Education* enrolls, at the beginning of the junior year, students already registered in other colleges of the University who are preparing to teach, and directs their work for the remaining two years.

*The School of Railway Engineering and Administration* offers curriculums leading to the degree of Bachelor of Science in railway civil, railway electrical, and railway mechanical engineering; and also curriculums in railway transportation and in railway administration, leading to the degree of Bachelor of Arts.

*The College of Law* offers curriculums of three years and four years leading to the degree of Bachelor of Laws.

Students holding the bachelor's degree in arts or science may become candidates in this College for the degree of Doctor of Law (J.D.).

*The College of Medicine* (Chicago) requires for admission two years of college work in liberal arts and sciences, and offers a four-year curriculum; at the end of the first two years the degree of Bachelor of Science is conferred, and at the end of the four years the degree of Doctor of Medicine. (For students matriculating in the College after July 1, 1917, and graduating after June 30, 1922, the completion of a year of hospital service is required for the degree of Doctor of Medicine).

*The College of Dentistry* (Chicago) offers a four-year curriculum leading to the degree of Doctor of Dental Surgery.

*The School of Pharmacy* (Chicago) offers a curriculum of two years leading to the degree of Graduate in Pharmacy, and a curriculum of three years leading to the degree of Pharmaceutical Chemist.

*The Summer Session*, of eight weeks, offered in 1918, courses in accountancy, agriculture, art and design, botany, chemistry, economics, education, electrical engineering, English, entomology, French, German, history, household science, industrial education, Latin, library science, mathematics, mechanics (theoretical and applied), music, physical training for men and for women, physics, political science, psychology, public health and sanitation, rhetoric, sociology, Spanish, and zoology.

All the courses given in the Summer Session are of collegiate grade and may be counted toward the bachelor's degree. Certain advanced courses may be counted toward the master's degree.

# ADMISSION

## GENERAL STATEMENT

An applicant for admission to any of the colleges or schools of the University must be at least sixteen years of age. Candidates for admission to the College of Dentistry (Chicago) and to the School of Pharmacy (Chicago) must be seventeen years of age.

Women are admitted to all departments under the same conditions and on the same terms as men.

Students may be admitted at any time, but should enter if possible at the beginning of the fall semester (in 1919, September 22), or at the beginning of the spring semester (in 1920, February 9). Students can seldom enter the College of Engineering to advantage except at the opening of the school year in September.

The entrance requirements for the *undergraduate departments*, including the colleges of LIBERAL ARTS and SCIENCES, COMMERCE AND BUSINESS ADMINISTRATION, ENGINEERING, and AGRICULTURE, and the SCHOOL OF MUSIC, amounting in each case to 15 units of high-school work, are stated in detail immediately below.

The School of Music requires collegiate standing in Piano, Voice, or Violin—that is, the equivalent of three years of preparatory study.

The requirements for the PROFESSIONAL DEPARTMENTS are as follows:

For the COLLEGE OF LAW, for admission to the *three-year course*, two years (60 semester hours)<sup>1</sup> of college work in arts, letters, and science in a recognized college or university; for admission to the *four-year course*, one year (30 semester hours)<sup>1</sup> of college work. (See page 191.)

For the LIBRARY SCHOOL, a bachelor's degree in arts, letters, and science from an institution having standards equal to those of the University of Illinois. (See page 176.)

For the COLLEGE OF MEDICINE (Chicago), in addition to 15 units<sup>2</sup> of high-school credit, two years (60 semester hours)<sup>1</sup> of college work in an institution having standards equal to those of the University of Illinois. (See page 196.)

For the COLLEGE OF DENTISTRY (Chicago) and the SCHOOL OF PHARMACY (Chicago), graduation from an accredited high school with 15 acceptable units,<sup>2</sup> or the equivalent. (See pages 219 and 231.)

## ENTRANCE REQUIREMENTS OF THE UNDERGRADUATE COLLEGES

### High-School Graduation

A candidate for admission by *certificate* must be a *graduate* of an accredited high school or other accredited school.

An applicant *who has not been graduated* from an accredited school must pass entrance examinations in the following subjects, amounting to 5 units<sup>2</sup>:

English composition.....	1 unit
Algebra.....	1 unit
Additional subjects to be designated by the University authorities.....	3 units
Total.....	5 units

The remaining 10 units necessary to make up the 15 units required for admission may also be made in entrance examinations or may be offered by certificate from an accredited school.

<sup>1</sup>For definition of semester hour, see page 237.

<sup>2</sup>For definition of unit, see page 66.

### Number of Units Required

Fifteen units<sup>1</sup> of high-school or other secondary-school work, in acceptable subjects (see Lists A, B, and C below), must be offered by every candidate. (But see "Admission on Probation on Principal's Recommendation, page 69.)

### Deficiencies

*No quantitative conditions are permitted.* In other words, every student must offer at the time of admission 15 units in acceptable subjects. These must include the 6 units specifically prescribed for all the undergraduate colleges (see List A below). It is provided, however, that a student who offers 15 acceptable units including the 6 units of List A, but is deficient not to exceed 2 units in subjects prescribed only for the college or curriculum which he wishes to enter (see below), may be admitted in that college or curriculum to courses for which he is fully prepared, subject to the requirement that the deficiencies in question shall be removed before he may register for a second year's work.

A student with deficiencies is not matriculated and must pay a tuition fee of \$7.50 a semester in addition to the regular incidental fee of \$15.00 a semester.

### Prescribed Subjects

#### Summary

The 15 units offered for admission must include:

I. Certain subjects <i>prescribed alike for all curriculums</i> (see List A below).....	6 units
II. Certain subjects <i>prescribed in addition for the individual curriculum</i> which the student wishes to enter.....	1 to 4 units
III. Enough <i>electives from List B</i> (below) to make, with the subjects prescribed for all curriculums (List A) and those prescribed for the individual curriculum of the student's choice, a total of 12 units.....	5 to 2 units
IV. <i>Three additional units</i> , which may be chosen either from List B or from the additional electives of List C (below).....	3 units
<b>Total.....</b>	<b>15 units</b>

### Detailed Statement

#### I. Units Prescribed for All Curriculums

Of the 15 units required, the following 6 units, constituting List A, are *prescribed* for admission to the freshman class in *all* the undergraduate curriculums of the university, and no substitutes are accepted.

##### LIST A

English (composition and literature).....	3 units
Algebra <sup>2</sup> .....	1 unit
Plane geometry.....	1 unit
Physics, or chemistry, or botany, or zoology, or physiology, or physiography, with laboratory work.....	1 unit
<b>Total.....</b>	<b>6 units</b>

#### II. Additional Prescriptions for Individual Curriculums

Of the 9 units that remain, certain others are *prescribed* for admission to *individual curriculums*, and in each case no substitutes are accepted for the curriculum in question. These additional prescriptions are as follows:

<sup>1</sup>A unit is the amount of work represented by the pursuit of one preparatory subject, with the equivalent of five forty-minute recitations a week, through 36 weeks; or, in other words, the work of 180 recitation periods of forty minutes each, or the equivalent in laboratory or other practice.

<sup>2</sup>One and one-half units of high-school algebra are prerequisite for registration in all college courses in mathematics, and college mathematics is prerequisite for courses in physics and advanced chemistry. It is necessary, therefore, for students who intend to pursue curriculums involving college mathematics, physics, or advanced chemistry, including the curriculums in home economics, chemistry, and chemical engineering, the pre-medical curriculum, or curriculums in commerce and business administration in which university courses in mathematics are prescribed, to present for admission to the University, or make up after entrance, *one-half unit of advanced algebra* in addition to the required unit of List A.

1. For the *General Curriculum*, the *Curriculum in Journalism*, and the *Pre-Legal Curriculum*, in the *College of Liberal Arts and Sciences*—  
Latin, Greek, French, German, or Spanish (both units in the same language) . . . . . 2 units
2. For the curriculums in *Household Administration*<sup>1</sup> and for *Home Economics Teachers*<sup>1</sup>, in the *College of Liberal Arts and Sciences* (see also paragraph 8)—  
Latin, Greek, French, German, or Spanish (both units in the same language) . . . . . 2 units  
Physics (if not offered for List A) . . . . . 1 unit
3. For the *Pre-Medical Curriculum*<sup>1</sup>, in the *College of Liberal Arts and Sciences*—  
Latin, Greek, French, or German (both units in the same language) . . . . . 2 units  
History and civics . . . . . 1 unit
4. For the curriculums in *Chemistry*<sup>1</sup> and *Chemical Engineering*<sup>1</sup>, in the *College of Liberal Arts and Sciences*—  
German or French (both units in the same language) . . . . . 2 units  
Chemistry . . . . . 1 unit  
Advanced algebra . . . . .  $\frac{1}{2}$  unit
5. For the *College of Commerce and Business Administration*<sup>1</sup>—  
(a) Latin, Greek, French, German, or Spanish (both units in the same language) . . . . . 2 units  
OR  
(b) { Advanced algebra . . . . .  $\frac{1}{2}$  unit  
and  
Solid and spherical geometry . . . . .  $\frac{1}{2}$  unit  
OR  
(c) Science (in addition to the unit for List A) . . . . . 1 unit
6. For the *College of Engineering*—  
Advanced algebra . . . . .  $\frac{1}{2}$  unit  
Solid and spherical geometry . . . . .  $\frac{1}{2}$  unit
7. For the *College of Agriculture*, for the agricultural curriculums—  
Science (in addition to the unit for List A) . . . . . 1 unit
8. For the *College of Agriculture*, for the *Curriculum in Home Economics*<sup>1</sup> (see also paragraph 2)—  
Physics (in addition to another unit of laboratory science for List A) . . . . . 1 unit
9. For the *School of Music*—  
Latin, Greek, French, German, or Spanish (both units in the same language) . . . . . 2 units  
Music . . . . . 2 units

### III. Electives from List B

Enough electives must be chosen from List B below to make, with the subjects prescribed for all curriculums (List A) and those prescribed for the individual curriculum of the student's choice, a total of 12 units.

It will be seen that the number of such electives from List B required for the several curriculums is as follows:

1. For the *General Curriculum*, the *Curriculum in Journalism*, and the *Pre-Legal Curriculum*, in the *College of Liberal Arts and Sciences* . . . . . 4 units
- 2, 3. For the curriculums in *Household Administration*<sup>1</sup> and for *Home Economics Teachers*<sup>1</sup>, and the *Pre-Medical Curriculum*<sup>1</sup>, in the *College of Liberal Arts and Sciences* . . . . . 3 units
4. For the curriculums in *Chemistry*<sup>1</sup> and *Chemical Engineering*<sup>1</sup>, in the *College of Liberal Arts and Sciences* . . . . .  $2\frac{1}{2}$  units
5. For the *College of Commerce and Business Administration*<sup>1</sup>—  
Under option (a) . . . . . 4 units  
Under option (b) . . . . . 5 units  
Under option (c) . . . . . 5 units
6. For the *College of Engineering* . . . . . 5 units
- 7, 8. For the *College of Agriculture*, both for the agricultural curriculums and for the *Curriculum in Home Economics*<sup>1</sup> . . . . . 5 units
9. For the *School of Music* . . . . . 2 units

### LIST B

		Units
Latin . . . . .	36 to 144 weeks	1-4
Greek . . . . .	36 to 108 weeks	1-3
French . . . . .	36 to 144 weeks	1-4
German . . . . .	36 to 144 weeks	1-4
Spanish . . . . .	36 to 144 weeks	1-4
Italian <sup>2</sup> . . . . .	36 to 72 weeks	1-2
Norwegian <sup>2</sup> . . . . .	36 to 72 weeks	1-2
Swedish <sup>2</sup> . . . . .	36 to 72 weeks	1-2
Polish <sup>2</sup> . . . . .	36 to 72 weeks	1-2
English (4th unit) . . . . .	36 weeks	1
Advanced algebra <sup>3</sup> . . . . .	18 or 36 weeks	$\frac{1}{2}$ -1
Solid geometry . . . . .	18 weeks	$\frac{1}{2}$
Trigonometry . . . . .	18 weeks	$\frac{1}{2}$
History <sup>4</sup> . . . . .	36 to 144 weeks	1-4
Civics . . . . .	18 or 36 weeks	$\frac{1}{2}$ -1
Economics and economic history . . . . .	18 or 36 weeks	$\frac{1}{2}$ -1

<sup>1</sup> See foot-note, page 66.

<sup>2</sup> Not accepted in satisfaction of the foreign-language prescription of the College of Liberal Arts and Sciences or of the School of Music, but only as an elective.

<sup>3</sup> See foot-note, page 66.

<sup>4</sup> Greek and Roman history, 1 unit; medieval and modern history, 1 unit; English history,  $\frac{1}{2}$  or 1 unit; American history,  $\frac{1}{2}$  or 1 unit.

Commercial geography.....	18 or 36 weeks	$\frac{1}{2}$ -1
Astronomy.....	18 weeks	$\frac{1}{2}$
Geology.....	18 or 36 weeks	$\frac{1}{2}$ -1
Physiography.....	18 or 36 weeks	$\frac{1}{2}$ -1
Physiology.....	18 or 36 weeks	$\frac{1}{2}$ -1
Zoology.....	18 or 36 weeks	$\frac{1}{2}$ -1
Botany.....	18 or 36 weeks	$\frac{1}{2}$ -1
Physics.....	36 to 72 weeks	1-2
Chemistry.....	36 to 72 weeks	1-2

#### IV. Additional Electives: List C

The remaining 3 units may be chosen either from List B above or from List C:

LIST C <sup>1</sup>		Units
Agriculture.....	36 to 108 weeks	1-3
Bookkeeping.....	36 weeks	1
Business law.....	18 weeks	$\frac{1}{2}$
Commercial arithmetic.....	18 weeks	$\frac{1}{2}$
Domestic science.....	36 to 72 weeks	1-2
Drawing, art and design.....	18 or 36 weeks	$\frac{1}{2}$ -1
Drawing, mechanical.....	18 or 36 weeks	$\frac{1}{2}$ -1
Manual training <sup>2</sup> .....	36 to 72 weeks	1-2
Music.....	36 to 72 weeks	1-2
Shorthand and typewriting <sup>3</sup> .....	36 to 72 weeks	1-2

#### Summary by Colleges and Curriculums

The requirements stated above may be summarized by colleges and curriculums as follows:

#### (1) For the *General Curriculum*, the *Curriculum in Journalism*, and the *Pre-Legal Curriculum*, in the COLLEGE OF LIBERAL ARTS AND SCIENCES—

- |  |         |
|--|---------|
| I. List A (prescribed for all curriculums).....  | 6 units |
| II. Special prescription for these curriculums—<br>Latin, Greek, French, German, or Spanish (both units in the same language) .. | 2 units |
| III. Electives from List B.....  | 4 units |
| IV. Electives from either List B or List C.....  | 3 units |

Total..... 15 units

#### (2) For the curriculums in *Household Administration*<sup>4</sup> and for *Home Economics Teachers*,<sup>4</sup> in the COLLEGE OF LIBERAL ARTS AND SCIENCES—

- |  |         |
|--|---------|
| I. List A (prescribed for all curriculums).....  | 6 units |
| II. Special prescriptions for these curriculums—<br>Latin, Greek, French, German, or Spanish (both units in the same language) ... | 2 units |
| Physics (if not offered for List A).....   | 1 unit  |
| III. Electives from List B.....  | 3 units |
| IV. Electives from either List B or List C.....  | 3 units |

Total..... 15 units

#### (3) For the *Pre-Medical Curriculum*,<sup>4</sup> in the COLLEGE OF LIBERAL ARTS AND SCIENCES—

- |  |         |
|--|---------|
| I. List A (prescribed for all curriculums).....  | 6 units |
| II. Special prescriptions for this curriculum—<br>Latin, Greek, French, or German (both units in the same language)..... | 2 units |
| History and civics.....  | 1 unit  |
| III. Electives from List B.....  | 3 units |
| IV. Electives from either List B or List C.....  | 3 units |

Total..... 15 units

#### (4) For the curriculums in *Chemistry*<sup>4</sup> and *Chemical Engineering*,<sup>4</sup> in the COLLEGE OF LIBERAL ARTS AND SCIENCES—

- |   |                      |
|---|----------------------|
| I. List A (prescribed for all curriculums).....   | 6 units              |
| II. Special prescriptions for these curriculums—<br>German or French (both units in the same language)..... | 2 units              |
| Chemistry.....  | 1 unit               |
| Advanced algebra.....   | $\frac{1}{2}$ unit   |
| III. Electives from List B.....   | $2\frac{1}{2}$ units |
| IV. Electives from either List B or List C.....   | 3 units              |

Total..... 15 units

<sup>1</sup>The subjects named in List C must be taught in accordance with specifications which are set forth in the High School Manual. Further information may be had on application to the High School Visitor.

<sup>2</sup>In giving credit for manual training the University specifies that the work is to be done by competent teachers, as determined by inspection, and that credit shall not exceed one unit for 360 forty-minute periods of work, including the necessary drawing and shop work.

<sup>3</sup>These two subjects must be offered together; no credit is given for either one offered separately.

<sup>4</sup>See foot-note, page 66.

(5) For the COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION<sup>1</sup>:

OPTION (A)	
I. List A (prescribed for all curriculums).....	6 units
II. Special prescription for this College under this option— Latin, Greek, French, German, or Spanish (both units in the same language) ...	2 units
III. Electives from List B.....	4 units
IV. Electives from either List B or List C.....	3 units
Total.....	15 units
OPTION (B)	
I. List A (prescribed for all curriculums).....	6 unit
II. Special prescriptions for this College under this option— Advanced algebra.....	$\frac{1}{2}$ unit
Solid and spherical geometry.....	$\frac{1}{2}$ unit
III. Electives from List B.....	5 units
IV. Electives from either List B or List C.....	3 units
Total.....	15 units
OPTION (C)	
I. List A (prescribed for all curriculums).....	6 units
II. Special prescription for this College under this option— Science (in addition to the unit for List A).....	1 unit
III. Electives from List B.....	5 units
IV. Electives from either List B or List C.....	3 units
Total.....	15 units

## (6) For the COLLEGE OF ENGINEERING:

I. List A (prescribed for all curriculums).....	6 units
II. Special prescriptions for this College— Advanced algebra.....	$\frac{1}{2}$ unit
Solid and spherical geometry.....	$\frac{1}{2}$ unit
III. Electives from List B.....	5 units
IV. Electives from either List B or List C.....	3 units
Total.....	15 units

## (7) For the COLLEGE OF AGRICULTURE, for the agricultural curriculums:

I. List A (prescribed for all curriculums).....	6 units
II. Special prescription for these curriculums— Science (in addition to the unit for List A).....	1 unit
III. Electives from List B.....	5 units
IV. Electives from either List B or List C.....	3 units
Total.....	15 units

(8) For the COLLEGE OF AGRICULTURE, for the Curriculum in Home Economics<sup>1</sup>:

I. List A (prescribed for all curriculums).....	6 units
II. Special prescription for this curriculum— Physics (in addition to another unit of laboratory science for List A).....	1 unit
III. Electives from List B.....	5 units
IV. Electives from either List B or List C.....	3 units
Total.....	15 units

## (9) For the SCHOOL OF MUSIC:

I. List A (prescribed for all curriculums).....	6 units
II. Special prescriptions for this School— Latin, Greek, French, German, or Spanish (both units in the same language) ...	2 units
Music.....	2 units
III. Electives from List B.....	2 units
IV. Electives from either List B or List C.....	3 units
Total.....	15 units

## Admission on Probation on Principal's Recommendation

A student who has been graduated from an accredited school, whose high-school course includes fifteen units, six of which are made up from List A, but whose high-school credits do not completely meet the requirements with respect to the selection of electives from Lists B and C, may be admitted to the University *on trial* for one semester on the *special recommendation of his high-school principal*; with the proviso that he shall be dropped automatically at the end of the first semester if he fails in more than one-third of his work,

<sup>1</sup>See foot-note, page 66.

and that if his grades in more than one-fourth of his work are below C he *may* be dropped on the recommendation of his college faculty. Such a student during his trial period is not permitted to take part in any public exhibition, or serve on the staff of any student publication, or hold or become a candidate for any undergraduate office.

### SPECIAL PROVISIONS FOR ADMISSION TO THE S.A.T.C.

It will be noted that the entrance requirements detailed above include:

1. *Graduation* from an accredited high school or other accredited secondary school; *and*

2. The satisfaction of certain *detailed prescriptions as to subjects*.

For the year 1918-19, on account of the emergency created by the organization of the Students' Army Training Corps, the University admitted to matriculation any student who could satisfy *either one* of the above requirements.

In other words, a *graduate* of an accredited high school or other accredited secondary school was admitted, during this year, irrespective of the subjects comprised in the course offered for graduation in such high school or other accredited school.

Also, during this year, a student who could satisfy the University's *detailed requirements as to subjects* was admitted, even if he had not been formally graduated from the secondary school he attended.

### METHODS OF ADMISSION

The credits required for admission to the undergraduate departments, as detailed above, may be secured:

(a) By *examination*.

(b) By *certificate* from an accredited high school or other secondary school.

(c) By *transfer* from another university or college of recognized standing.

#### (A) ADMISSION BY EXAMINATION

##### I. The University Entrance Examinations

The University entrance examinations are given at the University in Urbana (in Room 100 Commerce Building) three times in each year: in September, immediately before the opening of the fall semester; in January and February, shortly before the opening of the spring semester; and in July, during the Summer Session.

These examinations cover all the subjects required or accepted for admission, as outlined in the "Description of Subjects Accepted for Admission" on page 79.

For programs of these three sets of examinations for 1918-19, see pages 73-75.

##### II. The Examinations of the College Entrance Examination Board

The certificate of the College Entrance Examination Board, showing a grade of 60 per cent or higher, will be accepted for admission in any subject in the lists on pages 66, 67, and 68 in the amounts there specified as being acceptable. These examinations will be held during the week of June 16-21, 1919.

All applications for examination must be addressed to the Secretary of the College Entrance Examination Board, 431 West 117th Street, New York, N. Y., and must be made upon a blank form to be obtained from the Secretary of the Board on application.

Applications for examination at points in the United States east of the Mississippi River and at points on the Mississippi River, must be received by the Secretary of the Board at least three weeks in advance of the examinations, that is, on or before Monday, May 26, 1919; applications for examination at points in the United States west of the Mississippi River must be received at least four weeks in advance of the examinations,



that is, on or before Monday, May 19, 1919; and applications for examinations outside of the United States must be received at least six weeks in advance of the examinations, that is, on or before Monday, May 5, 1919.

Applications received later than the dates named will be accepted when it is possible to arrange for the admission of the candidate concerned, but only on payment of \$6.00 in addition to the usual fee.

The examination fee is \$6.00 for all candidates examined at points in the United States, and \$20.00 for all candidates examined outside of the United States. The fee (which cannot be accepted in advance of the application) should be remitted by postal order, express order, or draft on New York to the order of the College Entrance Examination Board.

A list of the places at which examinations are to be held by the Board in June, 1919, will be published about March 1. Requests that the examinations be held at particular points, to receive proper consideration, should be transmitted to the Secretary of the Board not later than February 1.

### III. The New York Regents' Examinations

Credits will be accepted, also, from the examinations conducted by the Regents of the University of the State of New York.

#### (B) ADMISSION BY CERTIFICATE FROM AN ACCREDITED PREPARATORY SCHOOL

Blank certificates for students wishing to enter the University by *certificate* from an accredited high school or academy may be had of the Registrar. They should be obtained early and should be filled out and sent to the Registrar for approval as soon as possible after the close of the high-school year in June. Certificates received at the University after September 19 (in 1919) will be held until the arrival of the student unless such certificates are accompanied by an addressed envelope with a special delivery stamp.

#### Accredited Schools

The High-School Visitor of the University visits and inspects, on request, high schools and other preparatory schools throughout the State. On the basis of his reports, approved by the Committee on Accredited Schools and by the Council of Administration, the University accredits all work which is found to be sufficiently well done. For a list of accredited schools, correct to February 15, 1919, see page 75. Not all the schools named in this list, however, are accredited for the same amount of work nor all for the same subjects. A student presenting a certificate from any one of these schools will be given entrance credit for all the subjects named therein *for which the school is specifically accredited as shown in the certificate of its accredited relation issued to the school by the University.*

Entrance credits will also be accepted on certificate from the following sources:

1. From schools accredited by the North Central Association of Colleges and Secondary Schools.
2. From schools accredited to the state universities which are included in the membership of the North Central Association of Colleges and Secondary Schools, provided the certificate shows that the Illinois standard time requirements have been met.
3. From schools approved by the New England College Entrance Certificate Board.
4. From high schools and academies registered by the Regents of the University of the State of New York.
5. From the state normal schools of Illinois and other state normal schools having equal requirements for graduation.

### Foreign Students

Candidates for admission who come from foreign countries should bring complete official credentials. Certificates from oriental countries should be accompanied by certified translations. Upon arriving at the University foreign students should consult with the Assistant Dean for Foreign Students, Room 153, Administration Building.

### Examination in Rhetoric 1

Those students who show by examination a proficiency in composition sufficient to qualify them for the second semester's work in rhetoric (Rhetoric 2) may be excused from the first semester's work (Rhetoric 1). An examination to test such proficiency will be given at 7:00 p. m., on the first day of registration (in 1919, September 22). The results of this examination will be announced the following morning. Students who try this examination should defer their registration until they learn whether or not they have passed in the examination.

### (C) ADMISSION BY TRANSFER OF ENTRANCE CREDITS FROM OTHER COLLEGES OR UNIVERSITIES

A person who has been admitted to another college or university of recognized standing will be admitted to this University upon presenting a certificate of honorable dismissal from the institution from which he comes and an official statement of the subjects upon which he was admitted to such institution, provided it appears that the subjects are those required here for admission by examination or real equivalents. No substitutes will be accepted for the subjects *prescribed* for all colleges or for individual colleges as indicated above (pages 66-69).

For admission to advanced standing by transfer of college credits see page 73 below.

Students intending to transfer to the University of Illinois should send an official statement of their college credits, accompanied by a summary of their preparatory work and by a letter of honorable dismissal, to the Registrar as early in the summer as possible.

### ADMISSION AS SPECIAL STUDENTS

Persons over twenty-one years of age may be admitted as special students, provided they secure (1) the recommendation of the instructor whose work they wish to take, and (2) the approval of the dean of the college concerned. They must give evidence that they possess the requisite information and ability to pursue profitably, as special students, their chosen subjects, and must meet the special requirements of the particular college in which they wish to enroll, as stated below.

A special student is not matriculated and must pay a tuition fee of \$7.50 a semester in addition to the regular incidental fee of \$15.00 a semester.

No one may enroll as a special student in any school or college of the University for more than two years, except by special permission, application for which must be made through the dean of the college.

A person registered as a special student in one college and desiring to take a course in another college of the University must obtain the approval of the dean of the latter college.

### Special Requirements of the Colleges and Schools

*The College of Liberal Arts and Sciences* requires a written application, accompanied by official certificates, indicating the character and extent of the applicant's preparatory work, and showing honorable dismissal from the school last attended. In order that action may be taken on such applications before registration they should be presented at least one week before the beginning of the semester.

*The College of Engineering* requires that applicants for admission as special students shall satisfy the entrance requirements in mathematics and English (one and one-half years of algebra, one year of plane geometry, one-half year of solid geometry, one year of English composition, and two years of English literature).

*The College of Agriculture* will receive non-matriculants twenty-one years old or over, provided that if deficient in English as measured by the requirements for matriculation, they shall arrange to carry English as one subject until that deficiency is made good; and provided further, in the case of men, that they shall have had at least two years of experience in practical agriculture.

*The Library School* requires a written application, accompanied by official certificates, indicating the character and extent of the applicant's preparatory and college work. In order that action may be taken on such applications before registration day, they should generally be presented not later than July 1. It is the practise of this School to admit as *special students* only those persons who, tho unable to meet the formal requirements for entrance, are substantially prepared for thoro and advanced work. Such persons must present evidence of possessing the requisite information and ability to pursue the chosen subjects profitably, and some substitute for the lacking requirements for entrance, such as approved library or teaching experience or foreign travel. Preference will be given to those already engaged in library work, especially in Illinois libraries. Students thus admitted are expected to take all of the course prescribed for those who are candidates for the degree of Bachelor of Library Science, or failing that, as much of the prescribed work as they are prepared for.

### ADMISSION TO ADVANCED STANDING

After matriculation, an applicant may secure advanced standing either by examination or by transfer of credits.

1. *By examination*—Advanced standing is granted only by examination unless the applicant is from an approved school.

2. *By transfer of credits*—Credits may be accepted for advanced standing from another university or a college or a junior college of recognized standing or from a state normal school. An applicant for advanced standing by transfer must present a certified record of work done in the institution from which he comes, accompanied by a letter of honorable dismissal. Students intending to transfer to the University of Illinois should send their credentials to the Registrar as early in the summer as possible.

Examinations for advanced standing are given without fee if taken within 60 days after matriculation; if taken later, a fee of \$5.00 is charged for each examination.

### PROGRAMS OF UNIVERSITY ENTRANCE EXAMINATIONS

The University entrance examinations are given at the University in Urbana (in Room 100, Commerce Building) three times in each year: in September, immediately before the opening of the fall semester; in January and February, shortly before the opening of the spring semester; and in July, during the Summer Session.

The scope of these examinations is indicated in the "Description of Subjects Accepted for Admission," pages 79-81.

Admission to the examinations is by permit. Permits may be obtained of the Registrar, 156 Administration Building.

#### Summer Entrance Examinations, July, 1919

History, 1-4 units.....Sat., July 5, 8:00 a. m.  
 Ancient history, 1 unit  
 Medieval and modern history, 1 unit  
 English history,  $\frac{1}{2}$  unit or 1 unit  
 American history,  $\frac{1}{2}$  unit or 1 unit

Civics, $\frac{1}{2}$ unit or 1 unit.....	Sat., July 5, 10:00 a. m.
Physiology, <sup>1</sup> $\frac{1}{2}$ unit or 1 unit.....	Sat., July 12, 8:00 a. m.
Commercial geography, $\frac{1}{2}$ unit or 1 unit.....	Sat., July 12, 8:00 a. m.
Physiography, <sup>2</sup> $\frac{1}{2}$ unit or 1 unit.....	Sat., July 12, 10:00 a. m.
Algebra, 1 unit or $1\frac{1}{2}$ units.....	Sat., July 19, 8:00 a. m.
Plane geometry, 1 unit.....	Sat., July 19, 8:00 a. m.
Solid and spherical geometry, $\frac{1}{2}$ unit.....	Sat., July 19, 10:00 a. m.
English literature, 2 units.....	Sat., July 26, 8:00 a. m.
English composition, 1 unit.....	Sat., July 26, 10:00 a. m.
Latin, 1, 2, 3, or 4 units.....	Sat., July 26, 8:00 a. m.
German, 1, 2, 3, or 4 units.....	Sat., July 26, 8:00 a. m.
Commercial arithmetic, $\frac{1}{2}$ unit.....	Sat., July 26, 10:00 a. m.

The time for examinations in agriculture, astronomy, bookkeeping, botany<sup>2</sup>, business law, chemistry<sup>2</sup>, domestic science, drawing (freehand or mechanical), economics and economic history, the fourth unit in English, French, geology, Greek, music, physics<sup>2</sup>, Spanish, stenography and typewriting, trigonometry, and zoology<sup>2</sup> will be arranged with candidates.

### Fall Examinations, September, 1919

Chemistry, <sup>2</sup> 1 unit.....	Mon., Sept. 15, 1:00 p. m.
Geology, $\frac{1}{2}$ unit or 1 unit.....	Mon., Sept. 15, 1:00 p. m.
Astronomy, $\frac{1}{2}$ unit.....	Mon., Sept. 15, 3:30 p. m.
Trigonometry, $\frac{1}{2}$ unit.....	Mon., Sept. 15, 3:30 p. m.
Commercial arithmetic, $\frac{1}{2}$ unit.....	Mon., Sept. 15, 3:30 p. m.
History, $\frac{1}{4}$ units.....	Tues., Sept. 16, 8:00 a. m.
Ancient history, 1 unit	
Medieval and modern history, 1 unit	
English history, $\frac{1}{2}$ unit or 1 unit	
American history, $\frac{1}{2}$ unit or 1 unit	
English literature, 2 units.....	Tues., Sept. 16, 1:00 p. m.
English composition, 1 unit.....	Tues., Sept. 16, 3:30 p. m.
Latin, 1st unit, or 2nd unit, or both.....	Wed., Sept. 17, 8:00 a. m.
Physics, <sup>2</sup> 1 unit.....	Wed., Sept. 17, 8:00 a. m.
Physical geography, <sup>1</sup> $\frac{1}{2}$ unit or 1 unit.....	Wed., Sept. 17, 10:30 a. m.
Algebra, 1 unit or $1\frac{1}{2}$ units.....	Wed., Sept. 17, 1:00 p. m.
Civics, $\frac{1}{2}$ unit or 1 unit.....	Wed., Sept. 17, 3:30 p. m.
Economics and economic history, $\frac{1}{2}$ unit or 1 unit.....	Wed., Sept. 17, 3:30 p. m.
Geometry, plane, 1 unit.....	Thurs., Sept. 18, 8:00 a. m.
Geometry, solid and spherical, $\frac{1}{2}$ unit.....	Thurs., Sept. 18, 10:30 a. m.
Physiology, <sup>1</sup> $\frac{1}{2}$ unit or 1 unit.....	Thurs., Sept. 18, 10:30 a. m.
German, 1st unit, or 2nd unit, or both.....	Thurs., Sept. 18, 1:00 p. m.
German, 3rd unit, or 4th unit, or both.....	Thurs., Sept. 18, 3:30 p. m.
French, 1st unit, or 2nd unit, or both.....	Thurs., Sept. 18, 1:00 p. m.
French, 3rd unit, or 4th unit, or both.....	Thurs., Sept. 18, 3:30 p. m.
Spanish, 1st unit, or 2nd unit, or both.....	Thurs., Sept. 18, 1:00 p. m.
Business law, $\frac{1}{2}$ unit.....	Thurs., Sept. 18, 1:00 p. m.
Commercial geography, $\frac{1}{2}$ unit or 1 unit.....	Thurs., Sept. 18, 3:30 p. m.
Latin, 3rd unit, or 4th unit, or both.....	Fri., Sept. 19, 8:00 a. m.
Bookkeeping, 1 unit.....	Fri., Sept. 19, 8:00 a. m.
Botany, <sup>2</sup> $\frac{1}{2}$ unit or 1 unit.....	Fri., Sept. 19, 8:00 a. m.
Zoology, <sup>2</sup> $\frac{1}{2}$ unit or 1 unit.....	Fri., Sept. 19, 10:30 a. m.

The time for examinations in agriculture, domestic science, manual training, freehand or mechanical drawing, stenography and typewriting, music, Greek, and the fourth unit in English, will be arranged with applicants.

### Midyear Examinations, February, 1920

Chemistry, <sup>2</sup> 1 unit or 2 units.....	Wed., Feb. 4, 8:00 a. m.
Geology, $\frac{1}{2}$ unit or 1 unit.....	Wed., Feb. 4, 8:00 a. m.
Astronomy, $\frac{1}{2}$ unit.....	Wed., Feb. 4, 10:30 a. m.
Trigonometry, $\frac{1}{2}$ unit.....	Wed., Feb. 4, 10:30 a. m.
Commercial arithmetic, $\frac{1}{2}$ unit.....	Wed., Feb. 4, 10:30 a. m.
History, $\frac{1}{4}$ units.....	Wed., Feb. 4, 1:00 p. m.
Ancient history, 1 unit	
Medieval and modern history, 1 unit	
English history, $\frac{1}{2}$ unit or 1 unit	
American history, $\frac{1}{2}$ unit or 1 unit	
English literature, 2 units.....	Thurs., Feb. 5, 8:00 a. m.
English composition, 1 unit.....	Thurs., Feb. 5, 10:30 a. m.
Latin, 1st unit, or 2nd unit, or both.....	Thurs., Feb. 5, 1:00 p. m.
Physics, <sup>2</sup> 1 unit.....	Thurs., Feb. 5, 1:00 p. m.
Physical geography, <sup>2</sup> $\frac{1}{2}$ unit or 1 unit.....	Thurs., Feb. 5, 3:30 p. m.
Algebra, 1 unit or $1\frac{1}{2}$ units.....	Fri., Feb. 6, 8:00 a. m.
Civics, $\frac{1}{2}$ unit or 1 unit.....	Fri., Feb. 6, 10:30 a. m.

<sup>1</sup> Notebook required for 1 unit. not required for  $\frac{1}{2}$  unit.

<sup>2</sup> Notebook required.

Economics and economic history, $\frac{1}{2}$ unit or 1 unit.....	Fri., Feb. 6, 10:30 a. m.
Geometry, plane, 1 unit.....	Fri., Feb. 6, 1:00 p. m.
Geometry, solid and spherical, $\frac{1}{2}$ unit.....	Fri., Feb. 6, 3:30 p. m.
Physiology, <sup>1</sup> $\frac{1}{2}$ unit or 1 unit.....	Fri., Feb. 6, 3:30 p. m.
German, 1st unit, or 2nd unit, or both.....	Sat., Feb. 7, 8:00 a. m.
German, 3rd unit, or 4th unit, or both.....	Sat., Feb. 7, 10:30 a. m.
French, 1st unit, or 2nd unit, or both.....	Sat., Feb. 7, 8:00 a. m.
French, 3rd unit, or 4th unit, or both.....	Sat., Feb. 7, 10:30 a. m.
Spanish, 1st unit, or 2nd unit, or both.....	Sat., Feb. 7, 8:00 a. m.
Business law, $\frac{1}{2}$ unit.....	Sat., Feb. 7, 8:00 a. m.
Commercial geography, $\frac{1}{2}$ unit or 1 unit.....	Sat., Feb. 7, 10:30 a. m.
Latin, 3rd unit, or 4th unit, or both.....	Sat., Feb. 7, 1:00 p. m.
Bookkeeping, 1 unit.....	Sat., Feb. 7, 1:00 p. m.
Botany, <sup>2</sup> $\frac{1}{2}$ unit or 1 unit.....	Sat., Feb. 7, 1:00 p. m.
Zoology, <sup>2</sup> $\frac{1}{2}$ unit or 1 unit.....	Sat., Feb. 7, 3:30 p. m.

The time for examinations in agriculture, domestic science, manual training, freehand or mechanical drawing, stenography and typewriting, music, Greek, and the fourth unit in English, will be arranged with applicants.

## LIST OF ACCREDITED SCHOOLS

(Correct to February 15, 1919)

The following high schools, having all the *prescribed* units, and enough others to make up the *required total* of 15 units, are in the list of fully accredited schools.

Not all of these schools, however, are accredited for the same amount of work, nor all for the same subjects. A student presenting a certificate from any one of these schools will be given entrance credit for all the subjects named therein *for which the school is specifically accredited, as shown in the certificate of its accredited relation issued by the University.*

The High-School Visitor of the University, on request, inspects high schools not previously accredited, if the request is accompanied by a report of the school which shows that it merits such inspection. The University accredits all work which is thus found to be sufficiently well done. For further particulars address THE HIGH-SCHOOL VISITOR, in care of the University of Illinois.

## FULLY ACCREDITED SCHOOLS.

ABINGDON  
HIGH SCHOOL  
HEDDING COLLEGE ACADEMY  
ACADEMY OF OUR LADY (Peoria)  
ALBION  
ALEXIS  
ALTAMONT  
ALTON  
HIGH SCHOOL  
WESTERN MILITARY ACADEMY  
ALTONA (Walnut Grove Tp.)  
ALVIN (Ross Tp.)  
AMBOY  
ANNA (Anna-Jonesboro Tp.)  
ANTIOCH TP.  
ARCOLA TP.  
ARGENTA TP.  
ARLINGTON HEIGHTS TP.  
ARMINGTON (Hittle Tp.)  
ARMSTRONG TP.  
ARTHUR TP.  
ASHLAND COMMUNITY  
ASHLEY TP.  
ASHTON  
ASSUMPTION TP.  
ASTORIA  
ATLANTA  
ATWOOD TP.  
AUBURN TP.  
AUGUSTA  
AUGUSTANA COLLEGE ACADEMY (Rock Island)

AURORA  
EAST HIGH SCHOOL  
WEST HIGH SCHOOL  
JENNINGS SEMINARY  
AUSTIN HIGH SCHOOL (Chicago)  
AVERYVILLE HIGH SCHOOL (Peoria)  
AVON  
BARRINGTON  
BARRY  
BATAVIA  
BEARDSTOWN  
BEAVERVILLE (HOLY FAMILY ACADEMY)  
BELLEVILLE TP.  
BELLEFLOWER TP.  
BELVIDERE  
BEMENT TP.  
BENTON TP.  
BETHANY TP.  
BIGGSVILLE TP.  
BISMARCK TP.  
BLOOMINGTON  
HIGH SCHOOL  
ST. JOSEPH'S ACADEMY  
ST. MARY'S HIGH SCHOOL  
BLOOM TP. (Chicago Heights)  
BLUE ISLAND TP.  
BLUE MOUND  
BOWEN  
BOWEN HIGH SCHOOL (Chicago)  
BRADFORD TP.  
BRADLEY POLY. INST. (Peoria)

<sup>1</sup> Notebook required for 1 unit; not required for  $\frac{1}{2}$  unit.

<sup>2</sup> Notebook required.

- BRIDGEPORT TP.  
 BRIMFIELD TP.  
 BUDA TP.  
 BUSHNELL  
 BYRON  
 CAIRO  
     HIGH SCHOOL  
     SUMNER HIGH SCHOOL  
 CALUMET HIGH SCHOOL (*Chicago*)  
 CAMBRIDGE  
 CAMP POINT  
 CANTON  
 CARBONDALE  
     SO. ILL. UNIV. H. S.  
 CARLINVILLE  
 CARL SCHURZ HIGH SCHOOL (*Chicago*)  
 CARLYLE  
 CARMI TP.  
 CARROLLTON  
 CARTERSVILLE  
 CARTHAGE  
     HIGH SCHOOL  
     CARTHAGE COLLEGE ACADEMY  
 CASEY TP.  
 CATLIN TP.  
 CENTRAL HIGH SCHOOL (*Peoria*)  
 CENTRALIA TP.  
 CHAMPAIGN  
     HIGH SCHOOL  
     ST. MARY'S HIGH SCHOOL  
 CHARLESTON  
 CHATSWORTH TP.  
 CHEBANSE TP.  
 CHENOA  
 CHESTER  
 CHICAGO  
     AUSTIN  
     BOWEN  
     CALUMET  
     CARL SCHURZ  
     CRANE, R. T. (TECH.)  
     ENGLEWOOD  
     FENGER  
     HARRISON TECH.  
     HYDE PARK  
     LAKE VIEW  
     LANE TECH.  
     LUCY FLOWER TECH.  
     MCKINLEY  
     MARSHALL  
     MEDILL  
     MORGAN PARK  
     PARKER  
     PHILLIPS  
     SENN  
     TILDEN  
     TULEY  
     WALLER  
 CHICAGO PRIVATE SCHOOLS  
     DEPAUL UNIVERSITY ACADEMY  
     F. W. PARKER SCHOOL  
     HARVARD SCHOOL  
     KENWOOD INSTITUTE  
     LATIN SCHOOL  
     LOYOLA ACADEMY  
     MORGAN PARK MILITARY ACADEMY  
     NORTH PARK COLLEGE ACADEMY  
     ST. FRANCIS NAVIER ACADEMY  
     ST. IGNATIUS ACADEMY  
     ST. LOUIS ACADEMY  
     ST. MARY'S HIGH SCHOOL  
     ST. STANISLAUS COLLEGE ACADEMY  
     STARRETT SCHOOL FOR GIRLS  
     UNIVERSITY HIGH SCHOOL  
 CHICAGO HEIGHTS (*Bloom Tp.*)  
 CHILLICOTHE TP.  
 CHRISMAN TP.  
 CICERO  
     J. STERLING MORTON TP.  
 CLAYTON  
 CLINTON  
 COLFAX  
 COLLINSVILLE TP.  
 CRANE, R. T. (TECH.) H. S. (*Chicago*)  
 CRYSTAL LAKE  
 CUBA
- DALLAS CITY  
 DANVILLE  
 DECATUR  
 DEERFIELD TOWNSHIP HIGH SCHOOL (*Highland Park*)  
 DEKALB TP.  
 DELAVAN  
 DEPAUL UNIVERSITY ACADEMY (*Chicago*)  
 DES PLAINES (*Maine Tp.*)  
 DIVERNON TP.  
 DIXON  
     HIGH SCHOOL  
     NORTH DIXON HIGH SCHOOL  
 DOWNER'S GROVE  
 DRUMMER TP. (*Gibson City*)  
 DUNDEE  
 DUQUOIN TP.  
 DWIGHT TP.  
 EARLVILLE  
 EAST DUBUQUE  
 EAST HIGH SCHOOL (*Aurora*)  
 EAST LYNN TP.  
 EAST MOLINE TP.  
 EAST ST. LOUIS  
     HIGH SCHOOL  
     LINCOLN HIGH SCHOOL  
 EDWARDSVILLE  
 EDUCATIONAL INST. H. S. (*Mooseheart*)  
 EFFINGHAM  
 ELDORADO TP.  
 ELGIN  
     HIGH SCHOOL  
     ELGIN JR. COLLEGE AND ACADEMY  
 ELMHURST  
     HIGH SCHOOL  
     EVANGELICAL PROSEMINAR  
 ELMWOOD TP.  
 ELPASO TP.  
 ENGLEWOOD HIGH SCHOOL (*Chicago*)  
 EQUALITY TP.  
 EUREKA  
     TOWNSHIP HIGH SCHOOL  
     COLLEGE PREP. SCHOOL  
 EVANGELICAL PROSEMINAR (*Elmhurst*)  
 EVANSTON TP.  
 FAIRBURY TP.  
 FAIRFIELD  
 FARINA  
 FARMER CITY (*Moore Tp.*)  
 FARMINGTON  
 FENGER HIGH SCHOOL (*Chicago*)  
 FERRY HALL (*Lake Forest*)  
 FISHER  
 FLORA (*Harter-Stanford Tp.*)  
 FORREST TP.  
 FRANCES SHIMER SCHOOL (*Mt. Carroll*)  
 FREEPORT  
 FULTON  
 GALENA  
 GALESBURG  
 GALVA  
 GARDNER TP.  
 GENESEO TP.  
 GENEVA  
 GENOA  
 GEORGETOWN TP.  
 GIBSON CITY (*Drummer Tp.*)  
 GODFREY (*Monticello Seminary*)  
 GOLDEN  
 GOOD-BARREN TP. (*Sesser*)  
 GRAND PRAIRIE SEMINARY (*Onarga*)  
 GRANITE CITY  
 GRAYVILLE  
 GREENFIELD  
 GREENUP  
 GREEN VALLEY  
 GREENVIEW  
 GREENVILLE  
 GRIGGSVILLE  
 HALL TP. (*Spring Valley*)  
 HAMILTON  
 HAMPSHIRE  
 HANOVER  
 HARLEM CONSOLIDATED SCHOOL (*Rockford*)  
 HARRISBURG TP.  
 HARRISON TECHNICAL HIGH SCHOOL (*Chicago*)

- HARTER-STANFORD TP. (*Flora*)  
 HARVARD  
 HARVARD SCHOOL (*Chicago*)  
 HARVEY (*Thornton Tp.*)  
 HAVANNA  
 HEBRON  
 HEDDING COLLEGE ACADEMY (*Abingdon*)  
 HENRY TP.  
 HERRIN TP.  
 HEYWORTH  
 HIGHLAND  
 HIGHLAND PARK (*Deerfield Tp.*)  
 HILLSBORO  
 HINCKLEY  
 HINDSBORO UNION  
 HINSDALE TP.  
 HITTLE TP. (*Armington*)  
 HOLY FAMILY ACADEMY (*Beaverville*)  
 HOMER  
 HOOPESTON  
 HUME TP.  
 HUTSONVILLE TP.  
 HYDE PARK HIGH SCHOOL (*Chicago*)  
 ILLIOPOLIS  
 INDUSTRY TP.  
 IRVING  
 JACKSONVILLE  
     HIGH SCHOOL  
     ROUTT COLLEGE ACADEMY  
     WHIPPLE ACADEMY  
     WOMAN'S COLLEGE ACADEMY  
 JENNINGS SEMINARY (*Aurora*)  
 JERSEYVILLE TP.  
 JOHNSTON CITY  
 JOHN SWANEY SCHOOL (*McNabb*)  
 JOINT TP. (*Tiskilwa*)  
 JOLIET  
     TOWNSHIP HIGH SCHOOL  
     ST. FRANCIS ACADEMY  
 J. STERLING MORTON TP. (*Cicero*)  
 KANKAKEE  
 KANSAS  
 KEITHSBURG  
 KENILWORTH (*New Trier Tp.*)  
 KENWOOD INSTITUTE (*Chicago*)  
 KEWANEE  
 KINMUNDY  
 KNOXVILLE  
     HIGH SCHOOL  
     ST. ALBAN'S SCHOOL  
 LACON UNION  
 LAFAYETTE TP.  
 LAGRANGE (*Lyons Tp.*)  
 LAKE FOREST  
     LAKE FOREST ACADEMY  
     FERRY HALL  
 LAKE VIEW HIGH SCHOOL (*Chicago*)  
 LANARK  
 LANE TECHNICAL HIGH SCHOOL (*Chicago*)  
 LASALLE (*LaSalle-Peru Tp.*)  
 LATIN SCHOOL (*Chicago*)  
 LAWRENCEVILLE TP.  
 LEBANON  
     HIGH SCHOOL  
     ACADEMY OF MCKENDREE COLLEGE  
 LELAND  
 LEMONT TP.  
 LENA  
 LEROY TP.  
 LEWISTOWN  
 LEXINGTON  
 LIBERTYVILLE TP.  
 LINCOLN  
 LINCOLN HIGH SCHOOL (*East St. Louis*)  
 LISLE  
     ST. PROCOPIUS COL. ACAD.  
 LITCHFIELD  
 LOCKPORT TP.  
 LODA  
 LONGVIEW TP.  
 LOVINGTON TP.  
 LYONS TP. (*LaGrange*)  
 MCHENRY  
 MCKINLEY HIGH SCHOOL (*Chicago*)  
 MCLEAN  
 MCLEANSBORO  
 MCNABB (*John Swaney School*)  
 MACKINAW TP.  
 MACOMB  
     HIGH SCHOOL  
     WESTERN ILL. NORMAL ACADEMY  
 MADISON  
 MAGNOLIA  
 MAINE TP. (*Des Plaines*)  
 MANSFIELD  
 MANTENO  
 MANUAL TRAINING HIGH SCHOOL (*Peoria*)  
 MARENGO  
 MARION TP.  
 MARISSA TP.  
 MAROA  
 MARSEILLES  
 MARSHALL HIGH SCHOOL (*Chicago*)  
 MARSHALL TP.  
 MARTINSVILLE  
 MASCOUTAH  
 MASON CITY  
 MATTOON  
 MAYWOOD (*Proviso Tp.*)  
 MAZON TP.  
 MEDILL HIGH SCHOOL (*Chicago*)  
 MENDON TP.  
 MENDOTA TP.  
 METAMORA TP.  
 METROPOLIS  
 MILFORD TP.  
 MINONK  
 MOLINE  
 MOMENCE  
 MONMOUTH  
 MONTICELLO  
 MONTICELLO SEMINARY (*Godfrey*)  
 MOORE TP. (*Former City*)  
 MOOSEHEART (EDUCATIONAL INSTITUTE HIGH SCHOOL)  
 MORRIS  
 MORRISON  
 MOUND CITY  
 MOUNDS TP.  
 MT. CARMEL  
 MT. CARROLL  
     HIGH SCHOOL  
     FRANCES SHIMER SCHOOL  
 MT. MORRIS  
     HIGH SCHOOL  
     MT. MORRIS COLLEGE ACADEMY  
 MT. OLIVE  
 MT. PULASKI TP.  
 MT. STERLING  
 MT. VERNON TP.  
 MOWEAQUA  
 MUNCIE (*Oakwood Tp.*)  
 MURPHYSBORO TP.  
 NAPERVILLE  
     HIGH SCHOOL  
     NORTHWESTERN COLLEGE ACADEMY  
 NASHVILLE  
 NEOGA TP.  
 NEW BERLIN TP.  
 NEWMAN TP.  
 NEWTON  
 NEW TRIER TP. (*Kenilworth*)  
 NIXON TP. (*Weldon*)  
 NOKOMIS TP.  
 NORMAL  
     HIGH SCHOOL  
     UNIVERSITY HIGH SCHOOL  
 NORTH DIXON HIGH SCHOOL (*Dixon*)  
 NORTH PARK COLLEGE ACADEMY (*Chicago*)  
 NORTHWESTERN COLLEGE ACADEMY (*Naperville*)  
 OAKLAND TP.  
 OAK PARK (*Oak Park and River Forest Tp.*)  
 OAKWOOD TP. (*Muncie*)  
 OBLONG TP.  
 ODELL  
     HIGH SCHOOL  
     ST. PAUL'S HIGH SCHOOL  
 O'FALLON  
 OLIVET (*College Academy*)  
 OLNEY TP.  
 ONARGA  
     TOWNSHIP HIGH SCHOOL  
     GRAND PRAIRIE SEMINARY  
 OREGON

- ORION  
 OTTAWA Tp.  
 PALATINE Tp.  
 PALESTINE Tp.  
 PANA Tp.  
 PARIS  
 PARKER HIGH SCHOOL (*Chicago*)  
 F. W. PARKER SCHOOL (*Chicago*)  
 PAWNEE Tp.  
 PAWPAP  
 PAXTON  
 PAYSON  
 PECATONICA  
 PEKIN  
 PEORIA  
     ACADEMY OF OUR LADY  
     AVERYVILLE HIGH SCHOOL  
     BRADLEY POLYTECHNIC INST.  
     MANUAL TRAINING HIGH SCHOOL  
     PEORIA HIGH SCHOOL  
     SPALDING INSTITUTE  
 PEOTONE  
 PETERSBURG  
 PHILLIPS HIGH SCHOOL (*Chicago*)  
 PINCKNEYVILLE  
 PITTSFIELD  
 PLANO  
 PLEASANT HILL  
 PLEASANT PLAINS Tp.  
 POLO  
 PONTIAC Tp.  
 POTOMAC Tp.  
 PRINCETON Tp.  
 PRINCEVILLE  
 PROVISIO Tp. (*Maywood*)  
 QUINCY  
     QUINCY COLLEGE ACADEMY  
     HIGH SCHOOL  
     ST. MARY'S ACADEMY  
 RANTOUL Tp.  
 RAYMOND  
 RICHMOND  
 RIDGEFARM Tp.  
 RIVERSIDE Tp.  
 ROANOKE Tp.  
 ROBINSON  
 ROCHELLE COMMUNITY  
 ROCK FALLS Tp.  
 ROCKFORD  
     HIGH SCHOOL  
     HARLEM CONSOLIDATED SCHOOL  
     ST. THOMAS HIGH SCHOOL  
 ROCK ISLAND  
     HIGH SCHOOL  
     AUGUSTANA COLLEGE ACADEMY  
     ST. JOSEPH'S ACADEMY  
     VILLA DE CHANTAL  
 ROLLO Tp.  
 ROODHOUSE  
 ROSEVILLE Tp.  
 ROSS Tp. (*Alvin*)  
 ROSSVILLE  
 ROUTT COLLEGE ACADEMY (*Jacksonville*)  
 RUSHVILLE  
 RUTLAND Tp.  
 SACRED HEART ACADEMY (*Springfield*)  
 ST. ALBAN'S SCHOOL (*Knoxville*)  
 ST. ANNE  
 ST. CHARLES  
 ST. ELMO  
 ST. FRANCIS ACADEMY (*Joliet*)  
 ST. IGNATIUS ACADEMY (*Chicago*)  
 ST. JOSEPH'S ACADEMY (*Bloomington*)  
 ST. JOSEPH'S ACADEMY (*Rock Island*)  
 ST. MARY'S ACADEMY (*Quincy*)  
 ST. MARY'S HIGH SCHOOL (*Bloomington*)  
 ST. MARY'S HIGH SCHOOL (*Chicago*)  
 ST. MARY'S HIGH SCHOOL (*Champaign*)  
 ST. PAUL'S HIGH SCHOOL (*Odel*)  
 ST. PROCOPIUS COLLEGE ACADEMY (*Liste*)  
 ST. THOMAS SCHOOL (*Rockford*)  
 SALEM  
 SANDWICH  
 SAUNEMIN Tp.  
 SAVANNA Tp.  
 SAYBROOK  
 SENN HIGH SCHOOL (*Chicago*)  
 SESSER (*Goode-Barren Tp.*)  
 SHEFFIELD  
 SHELBYVILLE  
 SHELDON  
 SIDELL Tp.  
 SOUTHERN ILLINOIS NORMAL UNIV. HIGH  
     SCHOOL (*Carbondale*)  
 SPALDING INSTITUTE (*Peoria*)  
 SPARTA Tp.  
 SPRINGFIELD  
     HIGH SCHOOL  
     SACRED HEART ACADEMY  
     URSULINE ACADEMY  
 SPRING VALLEY (*Hall Tp.*)  
 STANFORD  
 STAUNTON  
 STERLING Tp.  
 STOCKLAND Tp.  
 STOCKTON  
 STONINGTON  
 STREATOR Tp.  
 STRONGHURST  
 SULLIVAN Tp.  
 SUMNER HIGH SCHOOL (*Cairo*)  
 SYCAMORE  
 TAYLORVILLE Tp.  
 THERES Tp.  
 THORNTON Tp. (*Harvey*)  
 TILDEN HIGH SCHOOL (*Chicago*)  
 TISKILWA (*Joint Tp.*)  
 TOLEDO  
 TOULON Tp.  
 TRENTON  
 TULEY HIGH SCHOOL (*Chicago*)  
 TUSCOLA  
 UNIVERSITY HIGH SCHOOL (*Chicago*)  
 UNIVERSITY HIGH SCHOOL (*Normal*)  
 URBANA  
 URSULINE ACADEMY (*Springfield*)  
 VANDALIA  
 VENICE  
 VERMILION GROVE  
     VERMILION ACADEMY  
 VERMONT  
 VIENNA Tp.  
 VILLA DE CHANTAL (*Rock Island*)  
 VILLA GROVE Tp.  
 VIRDEN Tp.  
 VIRGINIA  
 WALLER HIGH SCHOOL (*Chicago*)  
 WALNUT GROVE Tp. (*Allona*)  
 WARREN  
 WARSAW  
 WASHBURN Tp.  
 WASHINGTON  
 WATERLOO  
 WATERMAN  
 WATSEKA  
 WAUKEGAN Tp.  
 WAVERLY Tp.  
 WAYNESVILLE Tp.  
 WELDON (*Nixon Tp.*)  
 WELLINGTON Tp.  
 WENONA  
 WEST CHICAGO  
 WEST HIGH SCHOOL (*Aurora*)  
 WESTERN ILLINOIS NORMAL ACADEMY (*Macomb*)  
 WESTERN MILITARY ACADEMY (*Alton*)  
 WEST FRANKFORT  
 WESTVILLE Tp.  
 WHEATON  
     HIGH SCHOOL  
     COLLEGE ACADEMY  
 WHIPPLE ACADEMY (*Jacksonville*)  
 WHITE HALL  
 WILMINGTON  
 WINCHESTER  
 WOMAN'S COLLEGE ACADEMY (*Jacksonville*)  
 WOOD RIVER  
 WOODSTOCK  
 WYOMING  
 YATES CITY Tp.  
 YORKVILLE



## DESCRIPTION OF SUBJECTS ACCEPTED FOR ADMISSION

The amount of work in each of the foregoing subjects which corresponds to the minimum number of credits assigned is shown by the description of subjects below.

1. **AGRICULTURE.**—Courses in agriculture should be arranged for periods of not less than 36 weeks. Such a course may be accepted for one unit of entrance credit, and two such courses may be accepted for two units, provided the work covered by each course is so closely related in its parts as to constitute one of the generally accepted divisions now recognized in agricultural work. At least one-half the time should be devoted to laboratory work, and note-books should be presented.

2. **ALGEBRA.** *One and one-half units.*—Fundamental operations, factoring, fractions, simple equations, extraction of roots, radicals, quadratic equations and equations reducible to quadratic form, surds, theory of exponents, proportion and variation, logarithms, and the analysis and solution of problems involving these principles.

3. **ALGEBRA.** *One unit.*—Fundamental operations, factoring, fractions, simple equations, extraction of roots, radicals of second order, fractional exponents, variation and proportion, quadratics, including completing the square and simultaneous equations having one quadratic and one linear equation and quadratic systems of simple form. See High School Manual for detailed outline.

4. **ASTRONOMY.**—In addition to a knowledge of the descriptive matter in a good text-book, there must be some practical familiarity with the geography of the heavens, with the various celestial motions, and with the positions of the conspicuous naked-eye heavenly bodies.

5. **BOOKKEEPING.**—The unit of work in bookkeeping for college entrance should aim to give a working knowledge of double entry bookkeeping, consisting of the fundamental principles, with particular emphasis on the study of business transactions and their interpretation in the ledger accounts, through the media known as books of original entry. The student should be drilled in the making of simple trading and profit and loss statements and of balance sheets, and should be able to explain the meanings of the items involved in both. The work should be done under the immediate supervision of a teacher, and the student should devote at least ten periods of not less than forty minutes full time in class each week for one academic year.

6. **BOTANY.**—A familiar acquaintance with the general structure of plants and of the principal organs and their functions, derived to a considerable extent from a study of the objects, is required; also a general knowledge of the main groups of plants; and the ability to classify and name the more common species. Laboratory note-books and herbarium collections should be presented.

7. **BUSINESS LAW.**—The amount of business law which is accepted is indicated by the ground covered in any of the ordinary text-books on the subject, such as Spencer's *Elements of Commercial Law*, Burdick's *Business Law*, and White's *Elements of Commercial Law*.

8. **CHEMISTRY.**—The instruction must include both text-book and laboratory work. The work should be so arranged that at least one-half of the time shall be given to the laboratory. The course as given in the best high schools in one year will satisfy the requirements of the University for the one unit for admission. The laboratory notes, bearing the teacher's indorsement, must be presented as evidence of the actual laboratory work accomplished. Candidates for admission may be required to demonstrate their ability by laboratory tests.

9. **CIVICS.**—Such an amount of study of the American Government, its history and interpretation, as is indicated by any of the usual high-school text-books on civil government, is regarded as sufficient for one term. The work may advantageously be combined with the elements of political economy.

10. **COMMERCIAL ARITHMETIC.**—The amount of work to be covered is represented by that found in any of the ordinary first-class texts on the subject, such as Finney's, Bookman's, Rowe's "New Essentials," Thurston's, and Baker's. Instruction should constantly attempt to emphasize the relation of arithmetic to business customs and procedures.

11. **COMMERCIAL GEOGRAPHY.**—The amount and character of the work accepted in this subject is indicated by the scope of such books as Redway's *Commercial Geography*, Adam's smaller book on the same subject, the text-books of Brigham or Robinson, or Trotter's work.

12. **DOMESTIC SCIENCE.**—(a) An equivalent of 180 hours of prepared work with at least two recitation periods a week in foods. (b) An equivalent of 180 hours of prepared work with at least one recitation period a week in clothing. (c) An equivalent of 180 hours of prepared work with at least two recitation periods a week on the home. (Two periods of laboratory work are considered equivalent to one period of prepared work.) Of the foregoing (a) will be accepted as a unit's work; or two half units taken from (a) and (b), or (a) and (c), or (b) and (c) will be accepted as a unit's work. The work is to be done by trained teachers with individual equipment, as determined by inspection.

13. **DRAWING.**—Free-hand or mechanical drawing, or both. Drawing-books or plates must be submitted. The number of credits allowed depends on the quantity and quality of the work submitted.

14. **ECONOMICS.**—The principles of economics, with economic history, as given in any good elementary text-book.

15. **ENGLISH COMPOSITION AND RHETORIC.**—On entering the University a student is expected to have a working knowledge of spelling, punctuation, grammar, sentence structure, and paragraphing, and to be able to write with considerable accuracy and effectiveness. He is expected to know the application of grammatical terms as used in a good text-book and to be able to state the essential principles of grammar and to explain the grammatical structure of any sentences encountered in his reading. He is supposed to know the elementary principles of rhetoric, the technical terms used in the subject, and the application of the principles to ordinary composition. The degree of proficiency expected in grammar, rhetoric, and composition can hardly be acquired in less than one period each week for four years. During at least half of this time the student should have written compositions under supervision and have received individual criticism of his written work. A review of grammar and some supervised composition in the fourth preparatory year are strongly advised. The elementary course in composition required of all students in the University is based on the assumption that each student has at least the degree of proficiency suggested in the foregoing paragraphs.

16. **ENGLISH LITERATURE.**—(a) Each candidate is expected to have read certain assigned literary masterpieces, and will be subjected to such an examination as will determine whether or not he has done so. With a view to a large freedom of choice, the books provided for reading are arranged in the following groups from which at least ten units are to be selected, two from each group. Each unit is here set off by semicolons.

1. The Old Testament, comprising at least the chief narrative episodes in Genesis, Exodus, Joshua, Judges, Samuel, Kings, and Daniel, together with the books of Ruth and Esther; the Iliad, with the omission, if desired, of Books XI, XIII, XIV, XV, XVII, XXI; the Odyssey, with the omission, if desired, of Books I, II, III, IV, V, XV, XVI, XVII; Vergil's Aeneid. The Iliad, the Odyssey, and the Aeneid should be read in English translations of recognized literary excellence.

For any unit of this group a unit from any other group may be substituted.

2. Shakespeare's Merchant of Venice; Midsummer Night's Dream; As You Like It; Twelfth Night; Henry the Fifth; Julius Caesar.

III. Defoe's *Robinson Crusoe*, Part I; Goldsmith's *Vicar of Wakefield*; Scott's *Ivanhoe* or *Quentin Durward*; Hawthorne's *House of Seven Gables*; Dickens' *David Copperfield* or *Tale of Two Cities*; Thackeray's *Henry Esmond*; Mrs. Gaskell's *Cranford*; George Eliot's *Silas Marner*; Stevenson's *Treasure Island*.

IV. Bunyan's *Pilgrim's Progress*, Part I; Sir Roger de Coverley Papers in the *Spectator*; Franklin's *Autobiography* (condensed); Irving's *Sketch Book*; Macaulay's *Essays on Lord Clive and Warren Hastings*; Thackeray's *English Humourists*; selections from Lincoln, including the two Inaugurals, the Speeches in Independence Hall and at Gettysburg, the Last Public Address, and the Letter to Horace Greeley, with a brief memoir or estimate; Parkman's *Oregon Trail*; either Thoreau's *Walden* or selection from Huxley's *Lay Sermons*; Stevenson's *Inland Voyage and Travels with a Donkey*.

V. Palgrave's *Golden Treasury* (First Series), Books II and III, with especial attention to Dryden, Collins, Gray, Cowper, Burns; Gray's *Elegy in a Country Churchyard* and Goldsmith's *Deserted Village*; Coleridge's *Ancient Mariner* and Lowell's *Vision of Sir Launfal*; Scott's *Lady of the Lake*; Byron's *Childe Harold*, Canto IV, and *Prisoner of Chillon*; Palgrave's *Golden Treasury* (First Series) Book IV, with especial attention to Wordsworth, Keats, and Shelley; Poe's *Raven*, Longfellow's *Courtship of Miles Standish*, Whittier's *Snow Bound*; Macaulay's *Lays of Ancient Rome* and Arnold's *Sohrab and Rustum*; Tennyson's *Gareth and Lynette*, *Lancelot and Elaine*, *The Passing of Arthur*; Browning's *Cavalier Tunes*, *The Lost Leader*, *How They Brought the Good News from Ghent to Aix*, *Home Thoughts from Abroad*, *Home Thoughts from the Sea*, *Incident of the French Camp*, *Herve Riel*, *Phedippides*, *My Last Duchess*, *Up at a Villa—Down in the City*.

(b) In addition to the foregoing the candidate will be required to present a careful, systematic study, with supplementary reading, of the history of either English or American literature.

(c) The candidate will be examined on the form and substance of certain books in addition to those named under (a). For 1919 the books will be selected from the list below. The examination will be of such a character as to require a minute study of each of the works named in order to pass it successfully. The list is: Shakespeare's *Macbeth*; Milton's *Comus*, *L'Allegro*, and *Il Penseroso*; Burke's *Speech on Conciliation with America*, or Washington's Farewell Address and Webster's First Bunker Hill Oration; Macaulay's *Life of Johnson*, or Carlyle's *Essay on Burns*.

The work outlined in (a), (b), and (c) counts for two units.

(d) The three units in English composition, rhetoric, and literature, as described above, are required for all students. A fourth unit may be obtained for one full year's additional work in the study of English and American authors.

16. FRENCH, *First year's work*.—Elementary grammar, with the more common irregular verbs. Careful training in pronunciation. About 100 pages of easy prose should be read. *Second year's work*.—Advanced grammar, with all the irregular verbs. Elementary composition, and conversation. About 300 pages of modern French should be read. *Third year's work*.—Intermediate composition and conversation. About 500 pages of standard authors should be read, including a few classics. *Fourth year's work*.—Advanced composition, and conversation. Standard modern and classical authors should be read and studied to the extent of 700 pages.

17. GEOLOGY.—For one unit, the equivalent of a year's work as conducted in first-class high schools. Such a course includes the thoro study of one of the more abbreviated modern text-books of geology, a generous amount of laboratory work on specimens, maps, models, etc., and wherever possible, several field trips. When available, laboratory note-books should be presented.

18. GEOMETRY.—(a) *Plane Geometry*. Special emphasis is placed on the ability to use propositions in the solution of original numerical exercises and of supplementary theorems.

(b) *Solid and Spherical Geometry*. Applications to the solution of original exercises are emphasized.

19. GERMAN.—Pupils should be trained to understand spoken German and to reproduce freely in writing and orally what has been read. A thoro knowledge of grammar is expected. No attempt is made in what follows to give more than a general outline for the work of successive years. *First year's work*.—At the end of the year pupils should be able to read intelligently and with accurate pronunciation simple German prose, to translate it into idiomatic English, and to answer in German easy questions on the passage read. A few short poems may be memorized. Elementary grammar should be mastered up to the subjunctive. Easy prose composition rather than the writing of forms will be the test of the grammatical work in entrance examinations. *Second year's work*.—Only modern writers should be read, preference being given to material which has a distinctly German atmosphere and which lends itself to conversational treatment in the class-room. The recitations should afford constant oral and written drill on the elementary grammar of the previous year. The beginner's book should be completed, but more importance is attached to accuracy and facility in simple modes of expression than to a theoretical knowledge of advanced syntax. *Third year's work*.—Most of the time should still be devoted to modern prose. There should be some work in advanced prose composition—based on German models—and the recitations should continue to afford abundant oral practise. Pupils ought by this time to understand spoken German. *Fourth year's work*.—At the end of this year a pupil should be able to read at sight any prose or verse of moderate difficulty, and be able to express himself orally or in writing with readiness and accuracy. Work in composition should take the form of free reproduction of portions of the texts studied rather than translation of English selections. The reading should be divided about equally between modern and classical authors.

20. GREEK, *First year's work*.—The exercises in any of the beginning books, and one book of the *Anabasis* or its equivalent. *Second year's work*.—Two additional books of the *Anabasis* and three of Homer, or their equivalents, together with an amount of Greek prose composition equal to one exercise a week for one year. *Third year's work*.—Three additional books of the *Iliad*, three of the *Odyssey*, and Books VI, VII, VIII of Herodotus, or an equivalent from other authors.

21. HISTORY.—One, two, or three units may be presented, to be chosen from the following list: Ancient history to 800 A. D., one unit; Medieval and modern history, one unit; English history, one-half or one unit; American history, one-half or one unit.

Examinations for entrance will be given in all these subjects. The examination for each unit is intended to cover one full year of high-school work.

22. LATIN, *First year's work*.—Such knowledge of inflections and syntax as is given in any good preparatory Latin book, together with the ability to read simple fables and stories. *Second year's work*.—Four books of Caesar's *Gallie War*, or its equivalent in Latin of equal difficulty; the ability to write simple Latin based on the text. *Third year's work*.—Six orations of Cicero; the ability to write simple Latin based on the text; the simplest historical references and the fundamental facts of Latin syntax. *Fourth year's work*.—Six books of Vergil's *Aeneid*, with history and mythology; the scansion of hexameter verse.

23. MANUAL TRAINING.—The requirement for one unit is the equivalent of 360 forty-minute periods in manual training following the syllabus prepared by the manual-training section of the High School Conference.

24. MUSIC.—Credit in harmony and musical appreciation, one unit or two units, is acceptable by certificate, from schools accredited therefor, for admission to all departments of the University. To be acceptable,

courses in these branches must represent the full equivalent of the following outline adopted by the University of Illinois High School Conference:

*Harmony (one unit each year).* *First Year.* A minimum of two periods of prepared work per week; elements of musical notation; construction of major and minor scales; keys; signatures; intervals, general and specific; key relationships, consonances and dissonances; triads, primary and secondary; inversions of triads; chord progressions; simple melodies harmonized with tonic dominant and sub-dominant harmonies; harmonic analysis; original work. *Second Year.* A minimum of three periods of prepared work per week; review of triads; seventh chords, primary and secondary; non-harmonic tones; chromatic chords, sequences, melodic and harmonic; diatonic modulations; harmonic analysis; original work.

*Musical Appreciation (one unit).* A minimum of two periods of prepared work per week for one year and a minimum of three periods of prepared work per week for a second year; based upon the standard choruses and instrumental selections from the works of the great composers of each epoch; to include additional instruction in theory, sight-singing, ear-training, musical forms, and the construction of lyric melody, including two and three period song forms; opera, oratorio, instrumental forms, early dances, suite, rondo, sonata, symphony, and modern composition; analysis and musical history.

For admission to the School of Music only, two units in "practical" music, i. e., piano, voice, or violin, are required. Students obtain credits in the "practical" music by examination. In the examination for two units in *piano*, students are required to play the following or the equivalent: Simple scales and arpeggios at fairly rapid tempo; scales in double octaves at a moderate speed; Bach, Two-Part Invention; Czerny, Op. 229; an easy Sonata of Haydn, Mozart, or Beethoven. In the examination for two units in *voice*, students are required to sing the following or the equivalent: Simple scales and arpeggios; studies selected from Concone, Sieber, Panofka, and Panzeron; songs selected from Schubert, Schumann, and modern composers. In the examination for two units in *violin*, students are required to play the following or the equivalent: Gruenberg—Foundation Exercises, numbers 81 to 117; Kayser, Opus 20, Book 2; Wohlfarth—Opus 74, Book 2; Allen, Polonaise, Opus 7, and Seitz, Concertino, No. 1, D major.

25. **PHYSICS.**—One year's high-school work covering the elements of physical science as presented in the best of the current high-school text books of physics. Laboratory practise in elementary quantitative experiments should accompany the text-book work. The candidate's laboratory note-book will be considered as part of the examination.

26. **PHYSICAL GEOGRAPHY.**—One year's work, fully covering such a text-book as those of R. S. Tarr and W. M. Davis. It is assumed that the recitations have been accompanied by several hours of laboratory work per week on various types of maps, models, etc., as well as by field excursions. Laboratory note-books should be presented for inspection.

27. **PHYSIOLOGY.**—For one-half unit: The anatomy, histology, and physiology of the human body and the essentials of hygiene, taught with the aid of charts and models to the extent shown in Martin's Human Body (Briefer Course). For more than one-half unit, the course must include practical laboratory work.

28. **SHORTHAND AND TYPEWRITING.**—These subjects must be taken together; no credit is given for either one by itself. For *one unit*, the time requirement is two periods daily of not less than forty minutes each for one year of thirty-six weeks, and the standard of attainment is 75 words a minute in taking dictation and 25 words a minute in the transcription on the machine of such dictation. For *two units*, the time requirement is two periods daily of not less than forty minutes each for two years of thirty-six weeks, and the standard of attainment is 100 words a minute in taking dictation and 35 words a minute in the transcription on the machine of such dictation. Accuracy in spelling, punctuation, capitalization, and paragraphing should be emphasized; and attention should be given to the care of the machine, methods of copying, manifold, etc.

29. **SPANISH.** *First year's work.*—Elementary grammar, including choro drill in the irregular verbs; careful training in pronunciation, and translation of simple Spanish when spoken; reading of about 100 pages of easy prose; simple composition and dictation; *Second year's work.*—In addition to the foregoing, about 300 pages of modern prose; elementary syntax; dictation, composition, and translation of spoken Spanish continued.

30. **TRIGONOMETRY.**—The work should cover the field of plane trigonometry, as given in standard text-books, including the solution of right and oblique triangles. Special emphasis is placed upon the solution of practical problems, trigonometric identities, and trigonometric equations.

31. **ZOOLOGY.**—The instruction must include laboratory work equivalent to four periods a week for a half-year, besides the time required for text-book and recitation work. Note-books and drawings must be presented to show the character of the work done and the types of animals studied. The drawings are to be made from the objects themselves, not copied from illustrations, and the notes are to be a record of the student's own observations of the animals examined. The amount of equipment and the character of the surroundings must determine the nature of the work done and the kind of animals studied; but in any case the student should have at least a fairly accurate knowledge of the external anatomy of each of eight or ten animals distributed among several larger divisions of the animal kingdom, and should know something of their life histories and of their more obvious adaptations to environment. It is recommended that special attention be given to such facts as can be gained from a careful study of the living animal. The names of the largest divisions of the animal kingdom, with their most important distinguishing characteristics, and with illustrative examples selected, when practicable, from familiar forms, ought also to be known.

# GRADUATION—FIRST DEGREES

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## THE BACHELOR'S DEGREE

A bachelor's degree is conferred on any student who satisfactorily completes the curriculum described under one of the various colleges and schools, doing either the first three years, or the last year, of his work in residence at the University.

### Residence Requirement

If the student is in residence at the University for one year only, that year's work must be taken in the college from which the degree is expected. No person will be recommended for a degree by the faculty of any college in the University unless he has been a regularly registered student in that college for at least one year.

### Number of Hours Required

A candidate for a bachelor's degree must pass in the subjects marked *prescribed* in his chosen curriculum, and must conform to the directions given in connection with that curriculum in regard to electives. In the College of Liberal Arts and Sciences, the College of Commerce and Business Administration, and the College of Agriculture, credit for 130 hours is required for graduation. In the College of Engineering, in the College of Law, in the Library School, and in the School of Music, the candidate must complete the curriculum as laid down.

In order to receive his bachelor's degree a student must have secured grades of not less than C in subjects aggregating at least three-fourths of the work, prescribed or elective, required for such degree.

### Military Science and Physical Education

The number of hours required includes, for men, five in military drill and tactics and two in physical education; and for women, three in physical education. Men excused from the military requirements, and women who do not take the course in physical education, must elect instead an equivalent number of hours in other subjects.

### Thesis

In all cases in which a thesis is required,<sup>1</sup> the subject must be announced not later than the first Monday in November, and the completed thesis must be submitted to the dean of the proper college by June 1. The work must be done under the direction of the professor in whose department the subject belongs, and must be in the line of the curriculum for which a degree is expected. The thesis must be presented on regulation paper; it is deposited in the library of the University.

### Degrees Conferred Four Times a Year

The annual commencement exercises are held in June, but degrees may be conferred at other times as follows:

Students who complete their work at the end of the first semester may, on application, be recommended for their degree at the February meeting of the Senate.

Students who are to complete their work for the bachelor's or the master's degree in the Summer Session, and who register in advance of the June meeting of the Senate for

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<sup>1</sup>See requirements for graduation in the various colleges.

specified courses in that session which complete the requirements in their cases, may be recommended at the June meeting, subject to the successful completion of the specified courses in the Summer Session.

Students who complete their work at the end of the Summer Session may, on application, be recommended at the October meeting of the Senate.

All graduates are ranked as of the class of the calendar year in which their degrees were conferred, i. e., students who receive their diplomas in August or October, with the class of the preceding June, and those who receive their diplomas in February, with the class of the following June.

### Second Bachelor's Degree

A student who has already received one bachelor's degree may receive a second bachelor's degree, provided that all specified requirements for both degrees be fully met, and provided also that the curriculum offered for the second degree include at least 30 semester hours not counted for the first degree.

### LIST OF FIRST DEGREES

1. The degree of BACHELOR OF ARTS is conferred on those who complete a curriculum in literature and arts, or certain curriculums in science, in the College of Liberal Arts and Sciences.

2. The degree of BACHELOR OF SCIENCE is conferred on those who complete a curriculum in the College of Engineering, in the College of Commerce and Business Administration, or in the College of Agriculture. This degree is conferred on a graduate of the College of Liberal Arts and Sciences who completes a curriculum in chemistry and may be conferred on graduates from other curriculums in this College on recommendation of the faculty. It may also be conferred on students who offer two years of acceptable college work for admission to the College of Medicine and complete the two years of scientific work in medical subjects and subjects preparatory to medicine which are offered in the Junior College; on the completion of the two additional years in clinical work offered in the Senior College, such students may receive the degree of Doctor of Medicine.

3. The degree of BACHELOR OF LAWS is conferred on those who complete the curriculum in the College of Law.

4. The degree of DOCTOR OF LAW is conferred on those who complete the curriculum in the College of Law, satisfying certain special requirements additional to those for the degree of Bachelor of Laws.

5. The degree of BACHELOR OF LIBRARY SCIENCE is conferred on those who complete the curriculum in the Library School.

6. The degree of BACHELOR OF MUSIC is conferred on those who complete one of the curriculums in the School of Music.

7. The degree of DOCTOR OF MEDICINE is conferred on those who complete the curriculum in the College of Medicine.

8. The degree of DOCTOR OF DENTAL SURGERY is conferred on those who complete the curriculum in the College of Dentistry.

9, 10. The degree of GRADUATE IN PHARMACY, or of PHARMACEUTICAL CHEMIST, is conferred on those who complete the shorter and the longer curriculums, respectively, in the School of Pharmacy.

# HONORS AND COMPETITIONS

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## UNIVERSITY HONORS

The University gives public official recognition to such students as attain a high grade of scholarship by the following system of honors.

### Preliminary Honors

*Preliminary Honors* are assigned at the completion of the sophomore year on the basis of the average of the grades received during the freshman and sophomore years in all studies except military and physical training. The number of persons to whom honors are awarded may not exceed one-tenth of the membership of the sophomore class. A failure in any subject disqualifies a student from receiving these honors. Preliminary Honors afford an opportunity for sophomores to secure recognition for high scholarship without waiting for graduation.

### Final and Special Honors

*(Candidates for the Degrees of B.S., B.Mus., LL.B., and B.L.S.)*

*Final Honors* are assigned on graduation on the basis of the average grades received during the junior and senior years. The number of persons to whom final honors are awarded may not exceed one-tenth of the membership of the senior class. A failure in any subject during the junior and senior years disqualifies a student from receiving these honors. Final honors are designed especially to favor students whose preparatory education has been so imperfect as to prevent them from receiving preliminary honors.

*Special Honors* are awarded at the close of the senior year. No student may receive such honors who has not completed, before the beginning of his senior year, at least twenty hours' work in the subject, or group of allied subjects, in which the honors are proposed; he must complete thirty hours' work in the same subject, or group of allied subjects, by the end of his senior year, must do such other work as the professor in charge may assign, and must prepare an acceptable thesis. No student is eligible for special honors who, during the senior year, has received a grade of less than C in any subject. Special honors are planned for especially brilliant students who prefer to concentrate their efforts on a special course. A student may be a recipient of both final and special honors.

### The Degree of Bachelor of Arts with Honors

The faculty of the College of Liberal Arts and Sciences has been authorized to recommend candidates for the degree of Bachelor of Arts *with honors* in a particular subject. Candidates for the degree with honors will be recommended by the faculty under the following conditions:

- (1) The student must have made A in at least three-fourths, and B in the remainder of the work offered for his major.
- (2) He must have completed the work offered for his minor with an average of not less than B.
- (3) Each candidate is required to present a thesis in his major subject.
- (4) Especially poor or careless work in any other subject may, by vote of the faculty, cause the honor degree to be withheld.

The purpose of these honors is not to encourage premature specialization but to give special recognition to students who have pursued with success correlated courses of study,

and to emphasize the importance, for scholarship in any subject, of thoro training in other related subjects. Candidates should announce their intention as early as possible in their college course and consult freely with the head of the department concerned in regard to the selection of their studies.

Candidates for the degree of Bachelor of Science in the College of Liberal Arts and Sciences are eligible for final and special honors under the regulations stated on page 84.

### **Freshman Honors**

*(College of Liberal Arts and Sciences)*

At the close of each year a list is prepared of those members of the freshman class in the College of Liberal Arts and Sciences who have made an especially good record in scholarship. The names of such students are announced at an assembly of the College; notice is also sent in each case to the parent or guardian, and to the principal of the high school of which the student is a graduate.

### **List of Honors**

The names of the students who received honors under the foregoing regulations during the academic year 1917-18 are published in part IX of this Register.

## **DEBATING AND ORATORY**

The University engages yearly in four intercollegiate debates, the teams for which are chosen in a series of competitive preliminaries to which all students are eligible. Through the generosity of Hon. William B. McKinley a gold watch-fob is presented to every speaker who represents the University, either in debate or in oratory.

THE *I. M. I.* DEBATING LEAGUE consists of the Universities of Illinois, Minnesota, and Iowa. It holds a debate at each university on the first Friday in December.

THE MIDWEST DEBATING LEAGUE consists of the Universities of Illinois, Michigan, and Wisconsin. It holds a debate at each university on the third Friday in March.

THE NORTHERN ORATORICAL LEAGUE, consisting of Northwestern University, Oberlin College, and the state universities of Illinois, Iowa, Michigan, Minnesota, and Wisconsin, holds an annual contest on the first Friday evening in May. The contests for 1919 will be held on May 2, at Chicago, Illinois. The winner receives the Lowden testimonial of one hundred dollars, and the speaker awarded second place, fifty dollars. The Illinois representative is selected in competitive contests open to all undergraduates.

THE INTERCOLLEGIATE PEACE ASSOCIATION holds annual state and interstate oratorical contests to which representatives of this University are eligible. Orations must be on some phase of the peace question. Cash prizes are offered in both contests.

A FRESHMAN-SOPHOMORE DEBATE and an INTER-SOCIETY DECLAMATION CONTEST are held yearly.

### **The Interscholastic Oratorical Prize**

A medal of the value of twenty dollars, and two medals of the value of ten dollars each, are offered annually by the University to the high schools of the State for the best orations delivered in a competitive contest between their representatives. This contest takes place in the spring at the time of the interscholastic athletic meet—in 1919, on May 16.

## **PRIZES IN PUBLIC SPEAKING**

The division of Public Speaking gives annually silver cups as first and second prizes to the two graduating seniors who, by representing the University in inter-collegiate contests in oratory and debate, have rendered the University the greatest service on the

platform. The awards shall be based on participation in a minimum number of debates and on a scale of points won in contests.

### THE THACHER HOWLAND GUILD MEMORIAL PRIZE

Friends and admirers of Thacher Howland Guild, instructor and associate in English, 1904-14, have endowed the Thacher Howland Guild Memorial Prize, an annual prize of \$25, to be given to the undergraduate student submitting the poem or one-act play which in the opinion of a committee appointed by the department of English shows the greatest originality and literary merit; provided that the award may be withheld in any year if no production deemed worthy of a prize is submitted. The name of the winner of this prize is printed in the commencement program.

### ST. PATRICK'S DAY PRIZE

Division One of the Ancient Order of Hibernians offered in the spring of 1916 and again in 1917 a prize of \$50 for the best essay by an undergraduate or a graduate student of the University on a subject connected with Ancient Irish literature, history, or archeology. In the fall of 1917 the State Board of Illinois of the Ancient Order of Hibernians guaranteed that the prize would be offered annually. The essay, not less than 5,000 words in length, must be submitted one month before Commencement Day. For further information address the chairman of the committee. The committee of award for 1918-19 is: Professor W. A. Oldfather (chairman); Dean W. W. Charters, and Professor E. C. Hayes, of the University, and Father John A. O'Brien.

### THE BRYAN PRIZE

In 1898 Mr. William Jennings Bryan gave to the University the sum of two hundred fifty dollars, from the interest on which a prize of twenty-five dollars is offered biennially for the best essay on the science of government. The contest is open to all matriculated undergraduate students. The essays may not be less than three thousand nor more than six thousand words in length, and must be left at the President's office not later than the second Wednesday in May. The prize was offered for the first time in 1901. It is offered in 1919.

### ARCHITECTURE

#### The Francis J. Plym Fellowship in Architecture

By the generosity of Mr. Francis J. Plym, of Niles, Michigan, a graduate of the University of Illinois of the class of 1897, the Trustees have been enabled to establish a fellowship for the advanced study of architecture. The stipend attached to this fellowship is \$1,000, awarded annually by competition in Architectural Design. The holder of the fellowship is required to spend a year in study and travel abroad. For further information address the department of architecture.

#### The American Institute of Architects Medal

The American Institute of Architects offers annually a medal for award to the senior in the department of architecture whose development during the four years' course is the most consistent and best. In making the award the scholarship in all work is considered.

#### The Scarab Medal in Architecture

The Scarab Society of the department of architecture offers annually a bronze medal to be awarded during the second semester for the best solution of a problem in architectural design, the competition being limited to students in architecture.



THE PRIZE IN ARCHITECTURE of the American Academy in Rome is open for competition among qualified undergraduates and graduates of certain American architectural schools, including that of the University of Illinois. This prize grants three years of residence and travel abroad for the study of classic and renaissance architecture.

## MILITARY CONTESTS AND PRIZES

### The University Bronze Medals

Bronze medals typical of the University and its Military Department are awarded by the University to the members of the infantry companies and artillery and signal detachments which shall score the greatest number of points at the annual competitive drill, held at some time between May 15 and May 31. The members of the company rifle team making the highest score at gallery target practise are also awarded medals. The medals so awarded become the permanent property of the recipients. A complete roster of the winning organizations is published in the Annual Register of the University for the following year. (None awarded, 1917-18.)

### The University Gold Medal

The Board of Trustees provides annually a gold medal which is to be awarded at the annual competitive drill held near the close of the year, to the best drilled student, whose property the medal becomes. Each student must have matriculated in the University and must have completed one semester's work in Military 1 with a grade of not less than B, and three semesters' work in Military 2 with a grade of not less than A; and he must have an average standing of not less than C in all of his other studies for the preceding semester, which standing shall be determined by the Registrar. The name of the winner is published in the Annual Register of the University for the following year. The award is made for excellence in the same details as in the Hazleton contest.

### The Hazleton Prize Medal

Captain W. C. Hazleton provided in 1890 a medal, which is awarded, at a competitive drill held at some time between May 15 and May 31, to the best drilled student. Each competitor must have been in attendance at the University at least sixteen weeks of the current college year; must have had less than five unexcused absences from drill; and must present himself for competition in full uniform.

The award is made for excellence in:

1. Erectness of carriage, military appearance, and neatness.
2. Execution of the school of the soldier, without arms.
3. Manual of arms, with and without numbers.

The name of the successful competitor is published in the Annual Register of the University for the following year. He is given a certificate setting forth the fact, and may wear the medal until the fifteenth day of the May following, when he must return it for the next competition.

# LECTURES AND OTHER GENERAL EXERCISES

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A part of the instruction afforded by the University to its students is given through the medium of lectures by distinguished men and women from outside the University faculty and by means of exhibitions, recitals, and other exercises distinct from the regular courses of instruction. A partial list of these exercises for the calendar year 1918 follows. Lectures by members of the University faculty are excluded from this list.

## GENERAL UNIVERSITY EXERCISES

### *Convocations*

- Feb. 8. COLLEGE OF ENGINEERING. Presentation of memorial to Professor A. N. Talbot.
- Feb. 12. LINCOLN DAY CONVOCATION.
- Apr. 8. UNIVERSITY CONVOCATION. The great lessons of a year of war. Addresses by President E. J. JAMES, Vice-President DAVID KINLEY, Professor ERNEST BERNBaum, and Mr. B. F. HARRIS.
- May 30. MEMORIAL DAY CELEBRATION: The Masque of the Titans of Freedom.
- Oct. 1. INDUCTION OF THE STUDENTS' ARMY TRAINING CORPS.
- Oct. 2. CONVOCATION FOR NEW MEN. Addresses by President E. J. JAMES and Dean T. A. CLARK.
- Oct. 8. CONVOCATION OF THE SCHOOL OF MUSIC.
- Dec. 1. PATRIOTIC MASS MEETING. Address by Professor S. P. Sherman: "In Thanksgiving for Victory." Music by Professor ERB and the CHORAL SOCIETY.
- Dec. 2. CONVOCATION IN HONOR OF THE MISSION OF FRENCH SCHOLARS.

### *General University Lectures*

- Feb. 7. Dr. F. G. COAN, of Persia: "Armenian relief work in Persia."
- Mar. 7. Mr. S. C. ARTHUR, Ornithologist: "Wild birds in their winter home in the Gulf of Mexico." (Moving pictures.)
- Mar. 18. Lieutenant HECTOR MACQUARRIE: "A message from the front."
- Oct. 8. Lord CHARNWOOD: "An English view of the American Revolution."
- Oct. 10. Lord CHARNWOOD: "The British and American systems of government."

### *War Lectures*

- Feb. 28. Professor C. U. CLARK: "Italy's part in the war; fighting above the clouds." (Illustrated.)
- Mar. 8. Captain H. D. OBERDORFER: "Arming our forces."
- Apr. 20. Mr. AUGUSTUS THOMAS: "General war talk."
- Apr. 25. WAR FILM: "The Red Cross at the French front."
- May 8. Mr. JOSEPH L. SMITH: "Children of the frontier." (Illustrated.)
- May 22. Mr. WALTER BUEHLER: "Road construction in the army cantonments."
- Oct. 10. Lord CHARNWOOD: "Lincoln."

### *Star Course*

- Jan. 23. THE BEN GREET PLAYERS.
- Mar. 16. HAROLD BAUER and PABLO CASALS.
- Apr. 27. THE SAM HUME PLAYERS.

Nov. 8. JOHN KENDRICK BANGS, humorist.

Nov. 30. RUSSIAN SYMPHONY ORCHESTRA.

### *The University Concert Course*

Jan. 4. Harpsichord recital by FRANCES PELTON-JONES.

Jan. 10. THEODORE SPIERING, violinist.

Feb. 21. ZOELLNER STRING QUARTET.

Mar. 12. UNIVERSITY CHORAL and ORCHESTRAL SOCIETIES: "The Crucifixion."

May 14. UNIVERSITY CHORAL SOCIETY.

Nov. 16. Madame THEODORA STURKOW-RYDER, pianist, and Mr. WARREN PROCTOR, tenor.

Dec. 6. FLONZALEY STRING QUARTET.

Dec. 14. UNIVERSITY CHORAL and ORCHESTRAL SOCIETIES: "The Creation."

### *Symphony Concerts*

Jan. 21. MINNEAPOLIS SYMPHONY ORCHESTRA.

Mar. 25. CHICAGO SYMPHONY ORCHESTRA.

Apr. 13. RUSSIAN SYMPHONY ORCHESTRA.

### *Exhibitions*

Jan. 21-22. ART AND DESIGN. Exhibit of lace.

Feb. 13-16. ARCHITECTURAL EXHIBITION. Elson Art Prints of Architecture, Sculpture and Painting.

Feb. 14-28. ARCHITECTURAL EXHIBITION. Student water-color work.

Mar. 19-26. ARCHITECTURAL EXHIBITION. Preliminary drawings for the Scarab medal.

May 1-5. ARCHITECTURAL EXHIBITION. Final drawings for the Scarab medal.

May 15-20. ARCHITECTURAL EXHIBITION. Winning drawings for the Plym Prize for Architectural Engineers.

May 21. APPLIED DESIGN. Work of students of Mr. G. R. Forbes.

Oct. 29-Nov. 5. ARCHITECTURAL EXHIBITION. Water-color sketches loaned by J. B. Dull of Philadelphia, Pennsylvania.

Nov. 1-8. ARCHITECTURAL EXHIBITION. Water-color sketches by N. C. Curtis and D. M. Allison.

Nov. 15-20. ARCHITECTURAL EXHIBITION. Pieces of stained glass from one of the ruined cathedrals of France.

### *Entertainments*

Jan. 12. PAGEANT: A Christmas Mystery of the War.

Feb. 5. POST EXAM. JUBILEE.

Feb. 13. RECEPTION given by President EDMUND J. JAMES in honor of Mr. and Mrs. C. W. ROLFE.

Feb. 21. MILITARY BALL.

Mar. 1. ANNUAL BAND CONCERT.

Mar. 9. Mr. CECIL J. SHARP: Demonstration of English Country Dances.

Mar. 22. MICHIGAN-ILLINOIS DEBATE.

Apr. 4. MASQUE OF THE WAR: "The Sword of America."

Apr. 20. PLAYERS CLUB: "Her husband's wife," by Thomas.

May 6. OUTDOOR CONCERT, UNIVERSITY MILITARY BAND.

May 10. Y. W. C. A. STUNT SHOW.

May 11. CONCERT: WOMAN'S GLEE CLUB AND UNIVERSITY CHORISTERS.

May 18. MARDI GRAS.

May 24-25. THE DEVEREUX PLAYERS. Benefit of Armenian-Syrian Relief.

Dec. 5. CONCERT: GARDE DE REPUBLICAINE BAND OF PARIS.

*University Christian Associations*

- Jan. 13. ALL UNIVERSITY SERVICE. Dr. ARTHUR J. FRANCIS: "An old world with a new conscience."  
 Feb. 17. ALL UNIVERSITY SERVICE. Rev. J. B. SILCOX, Montreal: "Daniel in Babylon."  
 Mar. 10. ALL UNIVERSITY SERVICE. Rev. CHARLES GILKIE, Hyde Park: "The necessary element in world democracy."  
 Mar. 24. ALL UNIVERSITY SERVICE. Rev. JOHN GARDNER: "Invested lives."  
 Nov. 15. ALL UNIVERSITY SERVICE. Dr. GUNSAULUS: "American ideals in the world war."  
 Nov. 28. ALL UNIVERSITY THANKSGIVING SERVICE.  
 Dec. 4. ALL UNIVERSITY MEETING. Address by Captain JOHN MACNEILL, Toronto.

*Short Courses and Conventions*

- Jan. 7-10. STATE CONFERENCE, BOYS AND GIRLS CLUBS.  
 Jan. 7-19. SHORT COURSE IN CERAMIC ENGINEERING.  
 Jan. 14-19. SHORT COURSE IN HIGHWAY ENGINEERING.  
 Jan. 28-Feb. 1. CORN GROWERS' AND STOCKMEN'S CONVENTION AND WAR CONFERENCE.  
 Feb. 13-14. WOMEN'S VOCATIONAL CONFERENCE.  
 Mar. 18-21. CONFERENCE OF COUNTY FARM ADVISERS.  
 Apr. 5-7. BETTER COMMUNITY WAR CONFERENCE.  
 Nov. 21-23. HIGH SCHOOL CONFERENCE.

*COLLEGE OF LIBERAL ARTS AND SCIENCES**College Assemblies*

- Feb. 14. Professor S. P. SHERMAN: "The literature evoked by the great war."  
 Mar. 7. Professor E. L. BOGART: "Economic consequences of the war."  
 Apr. 11. Professor E. A. ROSS, University of Wisconsin: "The social revolution in Russia."

*Education*

- Jan. 22. Mr. RUFUS W. STIMSON, Assistant Commissioner of Education in Massachusetts: "The project method of teaching."

*COLLEGE OF ENGINEERING**College Assemblies*

- Apr. 4. Professor D. D. EWING, Purdue University, Lafayette, Indiana: "Steam railway electrification."

*Convocation*

- Feb. 8. Presentation of Memorial to Professor A. N. TALBOT.

*Address Before the Freshman Class*

- Feb. 20. Mr. W. C. WRIGHT, National Founders' Association, Chicago, Illinois: Motion Film. "Foundry processes."

*Electrical Engineering*

- Jan. 18. Mr. J. L. STAIR, Chief Engineer, National X-Ray Reflector Company, Chicago, Illinois: "Illuminating engineering practise."  
 May 28. Mr. E. R. SHEPARD, Associate Electrical Engineer, Bureau of Standards, Washington, D. C.: "The work of the Bureau of Standards."

*War Lectures*

- Jan. 9. Major W. A. STARRETT, Munsey Building, Washington, D. C.: "The Government's building program as applied to cantonments, National Guard camps and aviation fields."
- Jan. 16. Major JOSEPH WHELESS, Carleton Building, St. Louis, Missouri: "War powers and military law."
- Feb. 20. Mr. S. J. DUNCAN-CLARK, War Correspondent, Chicago Evening Post, Chicago, Illinois: "What the war news means."

*THE COLLEGE OF AGRICULTURE*

ADDRESSES BEFORE THE CORN GROWERS' AND STOCKMEN'S CONVENTION IN COOPERATION WITH THE STATE COUNCIL OF DEFENSE

- Jan. 28. Professor A. W. JAMISON: "What Each Individual Can Conserve."
- Jan. 28. Professor FRED H. RANKIN: "Our Responsibility as Citizens in the World's War."
- Jan. 29. Mr. SAMUEL INSULL, Chairman: "The State Council of Defense."
- Jan. 29. Professor W. F. HANDSCHIN: "The County Advisors."
- Jan. 29. Professor J. W. GARNER: "Why We Are at War With Germany."
- Jan. 29. Professor L. M. LARSON: "The British Empire and the Great War."
- Jan. 29. Honorable CHARLES ADKINS, Director, State Department of Agriculture: "The Farmer's Duty in the World War."
- Jan. 29. Dean EUGENE DAVENPORT: "Food Production Program for Illinois."
- Jan. 29. Mr. CLARENCE DARROW, Chicago: Address.
- Jan. 30. Professor E. A. WHITE: "Farm Machinery Problems Under War Conditions."
- Jan. 30. Mr. H. B. DINEEN, Manager, Plow Department, John Deere and Company, Moline; Representing the Standardization Committee of the National Implement and Vehicle Association: "Some Problems Which the Manufacturers of Farm Machinery Have to Meet Under War Conditions."
- Jan. 30. Mr. J. B. BARTHOLOMEW, President, Avery Company, Peoria; Representing the Tractor and Thresher Department of the National Implement and Vehicle Association: "The Use of Tractors in War Time."
- Jan. 30. Mr. W. H. YOUNG, State Farm Help Specialist, U. S. Department of Agriculture: "The Farm Labor Situation in Illinois."
- Jan. 30. Mr. BURRIDGE D. BUTLER, Federal State Director, U. S. Boys' Working Reserve: "Boy Labor for Illinois Farms."
- Jan. 30. Professor DUDLEY GRANT HAYS, Chicago Public Schools: "High School Boys as Farm Hands."
- Jan. 31. Dr. CYRIL G. HOPKINS: "Soil Fertility the Basis for Increased Production."
- Jan. 31. Professor J. G. MOSIER: "Soil Management Plans."
- Jan. 31. Mr. EUGENE FUNK, Shirley, Illinois: "The Seed Corn Supply."
- Jan. 31. Mr. HENRY H. PARKE, Assistant Director, State Department of Agriculture, Springfield, Illinois: "Handling and Disposing of the Soft Corn."
- Jan. 31. Professor J. C. BLAIR, Department of Horticulture: "Horticulture's Contribution to the Food Problem."
- Jan. 31. Dean DAVID KINLEY, Vice-President, University of Illinois: "The Aims and Claims of Germany."
- Feb. 1. Professor HERBERT W. MUMFORD: "War Demands Upon the Live Stock Production of the United States."
- Feb. 1. Mr. W. J. CARMICHAEL: "Producing Illinois' Quota of Pork. Hog Feeding Problems."

- Feb. 1. Professor H. P. RUSK; JOHN IMBODEN, Decatur: "Beef Cattle."  
 Feb. 1. Professor J. L. EDMONDS; FRED RISING, Champaign: "Horses and Mules."  
 Feb. 1. Professor W. C. COFFEY; J. ORTON FINDLY, Champaign: "Sheep."  
 Feb. 1. Mr. FRANK PLATT, U. S. Department of Agriculture: "Poultry."  
 Feb. 1. Dean EUGENE DAVENPORT: "The Weakest Spot in Production."  
 Professor ISABEL BEVIER: "The Home Economics Work of the Food Administration."  
 Feb. 1. Mrs. HENRY M. DUNLAP, Savoy: "The Farm Woman's Part in the War."

## LECTURES AND EXERCISES

*Animal Husbandry*

- Apr. 4. Mr. W. M. MCFADDEN, Secretary American Poland China Record Association: "History of the Development of the Poland China."  
 Apr. 9. Dr. EDWARD BROWN, London, England: "Poultry and the War."  
 Apr. 9. Mr. E. C. STONE, Secretary American Hampshire Swine Record Association: "Hampshire Progress."  
 Apr. 16. Mr. F. S. SPRINGER, Secretary American Berkshire Association: "The Record of the Berkshires."  
 Apr. 18. Mr. R. J. EVANS, Secretary American Duroc Jersey Swine Breeder's Association: "History of the Duroc Jersey and Reasons for its Popularity."  
 May 15. Mr. WAYNE DINSMORE, Secretary Percheron Society of America: "The Influence of the Motor Truck on the Use of Draft Horses in Our Cities."

## HORTICULTURE

*Exhibition*

- Nov. 3-10. CHRYSANTHEMUM SHOW.

## THE COLLEGE OF LAW

- Apr. 22. Mr. H. C. HORNER: "Conveyancing and statutes of uses."  
 Apr. 23. Mr. H. C. HORNER: "Conveyancing and future estates." "Riparian rights and accretions."

## THE LIBRARY SCHOOL

- Apr. 18. Mr. GEORGE B. UTLEY, Secretary, American Library Association: "War Library Service."  
 Apr. 29. Mr. ADAM STROHM, Detroit Public Library: "The Experiences of a Camp Librarian."  
 May 7-8. Miss SARAH C. N. BOGLE, Carnegie Library School, Pittsburgh, Pa.: "Co-operation between Schools." "The Children's Work of the Carnegie Library at Pittsburgh."  
 Nov. 21. Mr. CAMILO OSIAS, Commissioner of Education, Philippine Islands: "The Status of Education in the Philippines."  
 Dec. 5-6. Miss LOUISE B. KRAUSE, Chicago, Ill.: "The Business Librarian."  
 Dec. 9-10. Miss MARY E. AHERN, Editor, Public Libraries, Chicago, Ill.: "The Story of Our Craft."  
 Dec. 13. Miss KATE D. FERGUSON, Assistant Camp Librarian, Camp Hancock, Ga.: "Camp Library Experiences."

## THE SUMMER SESSION

- June 20. ASSEMBLY.

- July 1. Mr. FRANK W. BALLOU, Director Department of Educational Investigation and

Measurement, Boston: "Improving instruction through educational measurement."

July 2-3. ELSIE HERNDON KEARNS PLAYERS: "The Master Builder." "The Blue Stockings."

July 5. NATIONAL SECURITY LEAGUE. Address by President G. E. VINCENT.

July 9-11. STATE VETERINARY MEDICAL ASSOCIATION CONFERENCE.

July 15-16. Professor G. M. WRONG, University of Toronto: "The British Empire—a union of free states." "The unity of English-speaking peoples a guaranty of peace."

July 15. Dr. E. J. BANKS, formerly Field Director University of Chicago Babylonian Expedition: "How we learned to write" (Illustrated).

July 28. VESPER SERVICE, Mr. C. B. HAYES: "The Red Triangle in China."

Aug. 2. DRAMATICS. Summer Session local talent under direction of Professor I. M. COCHRAN: "The Dear Departed" and "The Noble Lord."

# ASSOCIATIONS, SOCIETIES, AND CLUBS

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## GENERAL ORGANIZATIONS

### The Alumni Association

The Alumni Association is the general organization of the alumni of the University. The Association maintains an office at the University and publishes a fortnightly periodical, the *Alumni Quarterly and Fortnightly Notes*. The alumni of the College of Medicine, the College of Dentistry, the School of Pharmacy, and the Library School have formed departmental organizations. Forty-five local alumni associations have been organized: fourteen in Illinois, three in Missouri, two each in California, the District of Columbia, New York, Ohio, Texas, and Wisconsin, one each in Colorado, Idaho, Indiana, Iowa, Massachusetts, Michigan, Minnesota, North Dakota, Oregon, Pennsylvania, Tennessee, Utah, Washington, Brazil, India, and Japan. Regular University of Illinois alumni luncheons are held in fifteen cities. (See the Directory of Alumni Associations at the end of this volume.)

### University of Illinois Union

The University of Illinois Union is an association of the men of the University, having for its general object the promotion of college spirit and good fellowship. All male students are eligible to active membership in the Union; alumni and members of the faculty may become associate members.

### The Student Council

The Student Council, consisting of eight seniors and seven juniors, elected annually, has charge of certain undergraduate student activities.

### The Woman's League

The Woman's League was organized to further the spirit of unity among the women of the University and to be a medium for the maintenance of high social standards. The administrative power is vested in an Advisory Board and an Executive Committee composed of representatives from the various women's organizations. Every woman in the University is, by virtue of her registration, a member of the League. The League manages a loan fund, supports a room in the Burnham Hospital, and provides the magazines for the Woman's Building.

### Students' Hospital Fund

The Students' Mutual Benefit Hospital Fund provides ward hospital care for members who become ill and need such care for a period not to exceed four weeks during any semester. Members pay \$1.00 a semester. The Dean of Men is the Trustee of the Fund.

### Literary Societies

The ADELPHIC, IONIAN, and PHILOMATHEAN societies for men, and the ALETHENAI, ATHENIAN, ILLIOLA, and GREGORIAN societies for women, meet weekly, on Fridays, and the JAMESONIAN Society (for women) on Tuesdays, throughout term time.

### The Christian Associations

The present membership of the Young Men's Christian Association is 1,049. The Association building furnishes free, for the use of all students, lounging room and library,



parlors, organization rooms for committee meetings, correspondence tables, and check room. Religious meetings for men are held occasionally on Sunday afternoon. Thursday evening meetings are addressed by prominent faculty members on ethical topics. Student-led classes in Bible Study are promoted, the teachers receiving training in normal groups. An employment bureau managed by a special secretary, who maintains office hours every afternoon in the Association building, endeavors to help students to find work.

The Y. W. C. A. is housed in the Hannah McKinley building. Dormitory space is provided for fifty young women. There are parlors on the first floor for use of the women rooming in the house, a large assembly room, pianos, organization rooms, and correspondence tables. A modern dining room is located in the basement. There are 424 members of the Y. W. C. A. In 1917-18 there were 300 young women enrolled in voluntary Bible Study and 38 in study of missions and social service. An employment bureau is maintained at the Y. W. C. A. to help University women to find employment.

At the opening of the college year the Associations endeavor to help new students to find desirable rooming and boarding places. A copy of the Students' Handbook, giving information about Urbana and Champaign, the University, and the various college organizations and activities will be sent free to prospective students. For this handbook or for further information address the general secretary of either Association.

## HONORARY SOCIETIES

The honorary societies or fraternities named below are private intercollegiate organizations of students and graduates, having for their primary purpose the recognition and encouragement of excellence in scholarship in various departments of study. Election is in all cases made by the societies themselves in accordance with their own rules. The University assumes no responsibility for their elections.

### Phi Beta Kappa

Each year a certain number of the ranking students of the senior class in the College of Liberal Arts and Sciences are elected to membership in the Phi Beta Kappa Society. The number is ordinarily limited to one-fifth of the total membership of the graduating class.

#### *The Phi Beta Kappa Prize*

Gamma of Illinois chapter of Phi Beta Kappa offers annually a prize of \$25 to that member of Gamma Chapter who at his graduation from the College of Liberal Arts and Sciences gives evidence of greatest promise as a scholar in the domain of liberal arts. The award is based on the following considerations: (a) Class room records; (b) other literary and scholarly activities in the University; (c) an essay, which may be a senior thesis or a term paper. At the discretion of the committee in charge, the award may be withheld if none of the essays appears worthy of the prize. Essays submitted in competition and all correspondence with reference to this prize should be addressed to the Secretary of the Phi Beta Kappa Society, University of Illinois. The committee will not be limited in its award to those who have submitted papers specifically for this purpose or have otherwise given formal notice of candidacy. Special consideration will be given to theses deposited in the College Office by candidates for honors in the various departments.

### Sigma Xi

Members of the senior class who give "promise of marked ability" in scientific investigations are eligible to membership in the Sigma Xi Society, which was founded to encourage research in pure and applied science.

## Other Honorary and Professional Societies

Alpha Chi Sigma (Chemistry); Alpha Delta Sigma (Advertising); Alpha Kappa Psi (Commerce); Alpha Rho Chi (Architecture); Alpha Zeta (Agriculture); Beta Alpha Psi (Accounting); Beta Gamma Sigma (Commerce); Delta Sigma Rho (Oratory); Eta Kappa Nu (Electrical Engineering); Farm House (Agriculture); Gamma Alpha (Scientific); Gargoyle (Architecture); Graphomen (Journalism); Kappa Delta Pi (Education); Keramos (Ceramic Engineering); Ma-Wan-Da (Men's Senior Society); Medui (Pre-Medical); Mu Kappa Alpha (Musical); Omicron Nu (Home Economics); Mortarboard (Women's Senior Society); Order of the Coif (Law); Phi Alpha Delta (Law); Phi Delta Kappa (Educational); Phi Delta Phi (Law); Phi Lambda Upsilon (Chemistry); Pi Tau Sigma (Mechanical Engineering); Schem (Men's Junior Society); Scabbard and Blade (Military); Scarab (Architecture); Sigma Delta Chi (Journalism); Sigma Mu Rho (Medical); Sigma Tau (Engineering); Tau Beta Pi (Engineering); Theta Sigma Phi (Journalism); Theta Tau (Engineering); Triangle (Civil Engineering); Tribe of Illini ("I" Men); U. L. A. S. (Landscape Architecture).

## CLUBS AUXILIARY TO COURSES OF STUDY

In addition to the associations and societies of a general character described above, there are in each college a number of societies and clubs devoted to outside work of a literary, scientific, or technical nature auxiliary to the work of various departments of that college. Among these are the following:

In the COLLEGE OF LIBERAL ARTS AND SCIENCES: The Botanical Club, the Celtic Club, *le Cercle Francais*, *el Circulo Espanol*, the Chemical Club, the University of Illinois Section of the American Chemical Society, the Classical Club, *der Deutsche Verein*, the English Journal Club, the Geological Journal Club, Hexapocia, the History Club, the Mathematical Club, the Oratorical Association, the Pen and Brush Club, the Philological Club, the Political Science Club, Psychology Club, the Romance Journal Club, the Scandinavian Club, the Zoological Club.

In the COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION: The Commercial Club.

In the COLLEGE OF ENGINEERING: The Architectural Club, the Student Branch of the American Ceramic Society, the Civil Engineering Society, the Electrical Engineering Society, the Urbana Section of the American Institute of Electrical Engineers, the Student Branch of the American Society of Mechanical Engineers, the Student Branch of the American Association of Engineers, the Student Branch of the American Institute of Mining Engineers, the Physics Colloquium, the Railway Club.

In the COLLEGE OF AGRICULTURE: The Agricultural Club, the Horticultural Club, the Household Science Club, the Landscape Gardeners' Club, the Hoof and Horn Club, the Soils Research Club.

In the SCHOOL OF MUSIC: The University Choral and Orchestral Society, the University Military Band, the University Women's Glee Club, The University Choristers.

In the LIBRARY SCHOOL: The Library Club.

In the LAW SCHOOL: Inns of Court.

## FRATERNITIES, SOCIETIES, AND CLUBS

*National Fraternities.*—Acacia; Alpha Chi Rho; Alpha Delta Phi; Alpha Gamma Rho; Alpha Kappa Psi; Alpha Phi Alpha; Alpha Sigma Phi; Alpha Tau Omega; Beta Phi; Beta Theta Pi; Chi Phi; Chi Psi; Delta Kappa Epsilon; Delta Tau Delta; Delta Upsilon; Kappa Sigma; Lambda Chi Alpha; Phi Delta Theta; Phi Gamma Delta; Phi Kappa; Phi Kappa Psi; Phi Kappa Sigma; Phi Kappa Tau; Phi Sigma Kappa; Pi Kappa Alpha;

Psi Upsilon; Sigma Alpha Epsilon; Sigma Alpha Mu; Sigma Phi Epsilon; Sigma Phi Sigma; Sigma Chi; Sigma Nu; Sigma Pi; Tau Kappa Epsilon; Theta Chi; Theta Delta Chi; Zeta Beta Tau; Zeta Psi.

*Sororities.*—Achoth; Alpha Chi Omega; Alpha Delta Pi; Alpha Gamma Delta; Alpha Omicron Pi; Alpha Xi Delta; Chi Omega; Delta Alpha Omega; Delta Gamma; Gamma Phi Beta; Kappa Alpha Theta; Kappa Kappa Gamma; Pi Beta Phi; Sigma Kappa.

*Local Clubs.*—Beta Pi; Beta Upsilon; Bushnell Guild; Chi Beta; Chi Theta; Ilus; Iris; Pi Pi Rho; Gamma Sigma Kappa.

*Interfraternity Organizations.*—Men's Pan Hellenic Council; Girls' Pan Hellenic Association; Skull and Crescent; Yo Ma; Phi Delta Psi; Ku Klux Klan.

### OTHER ORGANIZATIONS

Other student societies include the following:—Bahai Group; Chinese Students' Club; Comitatus; Christian Science Society; Cosmopolitan Club (Men's); Cosmopolitan Club (Women's); Illinois Drama Federation; Japanese Students' Club; Komenian Society; Latin-American Club; Lambda Epsilon Phi (Republican); Mask and Bauble (dramatic); Pierrots (vaudeville); Scribblers' Club; Socialist Study Club; Menorah; Country Life Club; Dames Club; Woman's War Relief Committee.

# UNDERGRADUATE SCHOLARSHIPS

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(For circulars giving more detailed information concerning scholarships, apply to the Registrar of the University.)

## COUNTY SCHOLARSHIPS

A law passed by the General Assembly of the State of Illinois at the session of 1905 and embodied in the General School Law of 1909 provides that one scholarship may be awarded annually to each county of the State. The holder thereof must be at least sixteen years of age, and a resident of the county to which he is accredited. No student who has attended the University of Illinois is eligible for a scholarship. The holder of a scholarship is relieved of payment of the matriculation fee (\$10, payable once, on entrance) and the incidental fee (\$30 a year) for four years in any department of the University other than the professional schools. The term "professional schools," as here used, includes the College of Law, the Library School, the College of Medicine, the College of Dentistry, and the School of Pharmacy.

A competitive examination, under the direction of the President of the University, and on such branches of study as the President may select, is held on the first Saturday in June of each year, at the county court house in each county by the County Superintendent of Schools. Questions for the examinations are furnished in advance to the County Superintendents.

The successful candidates in the examinations must then meet in full, either by certificate from an accredited high school or by passing entrance examinations at the University, the requirements for admission to the freshman class, and must register the following September.

In case the scholarship in any county is not claimed by a resident of that county, the President of the University may fill the same by assigning to that county from some other county the student found to possess the next highest qualifications.

A student holding a scholarship who shall make it appear to the satisfaction of the President of the University that he requires leave of absence for the purpose of earning funds to defray his expenses while in attendance, may, in the discretion of the President, be granted such leave of absence, and may be allowed an extension of his scholarship for not more than two years (making not more than six years in all from the beginning of the scholarship. Such extension will not be granted unless the student has been in attendance at the University for at least one full semester, nor unless the student's average grade during the period of his attendance has been at least 75, exclusive of grades in military science and physical education.

## GENERAL ASSEMBLY SCHOLARSHIPS

The same act by which the county scholarships described above were established also provides that each member of the General Assembly may nominate annually one eligible person from his district for a scholarship in the University, granting the same privileges as the county scholarships.

A member of the General Assembly who wishes to nominate a candidate for a scholarship should file the name and address of his nominee as early in the spring as practicable and not later than June 1, with the President of the University and also with the County Superintendent of the county in which the nominee resides.

The nominee, if a graduate of a school accredited by the University, shall be admitted to the University on the same conditions as to educational qualifications as are graduates

of such accredited high schools not so appointed to scholarships, and if any such candidate is not a graduate of a School accredited by the University, he shall present himself for examination—the same that is given to competitors for the county scholarships on the first Saturday in June, under the County Superintendent. The nominee must further (1) meet in full, either by certificate from an accredited high school or by passing entrance examinations at the University, the requirements for admission to the freshman class; and (2) to register in the University the following September.

If a nominee fails to make a passing grade (70) in the scholarship examination he may not receive the scholarship. In this case notice will be sent to the member of the General Assembly who made the nomination, who is then entitled to nominate a second candidate, before the first registration day in September. This second candidate is subject to all the requirements stated above; the scholarship examination will be given him at the University on the Wednesday preceding the fall registration days (in 1919, September 17).

A General Assembly scholarship may be extended under the same conditions as a county scholarship.

### SCHOLARSHIPS IN CERAMIC ENGINEERING

The University offers annually, to each county in the State, one scholarship, awarded on the nomination of the Illinois Clay Workers' Association, to applicants who intend to follow the curriculum in Ceramic Engineering. These scholarships are good for four years and relieve the student from the payment of the matriculation fee (\$10, payable once, on entrance), and the incidental fee (\$30 a year).

The candidate must be at least sixteen years of age, must be a resident of the county for which he is nominated, and must meet *in full, before entering*, by certificate from an accredited high school or by passing entrance examinations at the University, the requirements for admission to the freshman class.

### SCHOLARSHIPS IN AGRICULTURE AND HOME ECONOMICS

The University offers every year to each county in the State, except Cook and Lake, and to each of the first ten congressional districts, one scholarship for prospective students of agriculture in the College of Agriculture and one for prospective students of home economics in the College of Liberal Arts and Sciences or the College of Agriculture.

Appointments to scholarships in agriculture are made by the Trustees of the University on the recommendation of the Executive Committee of the Illinois Farmers' Institute; and to scholarships in home economics on the recommendation of the County Domestic Science Associations, or, for counties and districts in which there are no domestic science associations, on the recommendation of the Illinois Farmers' Institute. Persons who have already attended the University are not eligible, and no person will be assigned a scholarship unless his name is received by the Registrar of the University on or before the registration days of the semester with which the scholarship is to begin.

Candidates who are able to meet in full the requirements for admission to the freshman class are eligible for appointment at 16 years of age. Candidates who cannot meet these entrance requirements are eligible for appointment as special students (in the College of Agriculture) at 21 years of age.

Acceptable candidates, residents of counties or districts for which appointments have been made, not exceeding five in number from any one county or district, may be assigned to counties or districts for which no recommendations are made. The first nominee from each county or district, if duly qualified, is awarded the scholarship at the time of registration. Other nominees must pay the regular fees on registration. Assignments to counties and districts for which there are no nominees registered are made on October 15, at which time the nominees so assigned to counties or districts other than their own receive rebates of the full amount of the matriculation and incidental fees paid.

The scholarships are good for two years and relieve the holders from the payment of the matriculation fee (\$10, payable once, on matriculation), the incidental fee (\$30 a year), and (in the case of special students) the tuition fee (\$15 a year). If, before a scholarship expires, the holder satisfies in full the requirements for admission to the freshman class of the college in which he or she is enrolled, the term of the scholarship may be extended to four years from the date of the student's matriculation.

### THOMAS J. SMITH SCHOLARSHIPS IN MUSIC

Captain Thomas J. Smith, of Champaign, Illinois, on September 17, 1914, conveyed to the Board of Trustees of the University certain farm lands in Champaign County, in consideration whereof the Board of Trustees agreed to erect a building for the music departments of the University, to be known as the Tina Weedon Smith Memorial Building, and further to grant annually in the University four free scholarships in the music departments "for young women who may seek a musical education but who are unable to pay the customary charges for instruction in music;" these scholarships to be assigned by way of preference to candidates from Champaign County, but in case there are no candidates from this county, to be assigned to young women from other counties in Illinois.

#### Regulations:

(1) These scholarships shall be good for one year and shall exempt their holders during this period from matriculation, incidental, and music fees.

(2) A person who during her year of tenure of one of these scholarships shall make an average grade of B in all subjects shall be eligible for reappointment to it for a second year, and on the same basis may be reappointed for a third year and a fourth year.

(3) Each applicant for original appointment to one of these scholarships shall present a recommendation from the principal of a high school accredited to the University, certifying that she is a graduate of the high school, that she is a student of ability and promise, and that in the judgment of the principal of the high school she is unable to pay the customary charges for instruction in music.

(4) Each applicant for original appointment to one of these scholarships shall pass the University entrance examinations in the following subjects: English composition and rhetoric, 1 unit; algebra, 1 unit; Latin or French or German, 2 units; music, 2 units; these examinations to be taken with the regular fall entrance examinations of the University. The scholarships shall be awarded to the candidates from Champaign County who make the highest average grade in these four examinations. In case the number of successful candidates from Champaign County is fewer than the number of available scholarships, the remaining scholarships shall be awarded to the candidates from other counties in Illinois having the highest average grade in these four examinations. But no scholarship shall be awarded to any candidate who fails to make a passing grade (70) in any one of the four subjects of the examination.

(5) A candidate for original appointment must also satisfy in full the entrance requirements of the School of Music as stated in the University catalog, and must matriculate in that School for the full semester immediately succeeding the examination.

(6) No person who has attended the University shall be eligible for appointment to these scholarships.

### JOSEPH T. RYERSON AND SON SCHOLARSHIPS

#### (Mechanical or Railway Engineering)

The Joseph T. Ryerson and Son Scholarships of the American Railway Master Mechanics' Association, two in number, provide each for an annual stipend of \$300.00 to be paid to the beneficiary during the four years of his attendance in an engineering course

at the University of Illinois, the University of Wisconsin, or Purdue University. Competitive examinations for these scholarships are conducted by the three universities in turn. The next appointment will be made for September, 1919, and the examination will be conducted in June, 1919, by the University of Illinois. Practical railroad experience is considered in the selection of candidates. Beneficiaries are expected to spend two years after graduation in the mechanical department of some railroad, and when financially able to do so to refund in convenient sums the amount of the scholarship for the benefit of others. For further information address Jos. W. Taylor, Secretary of the American Railway Master Mechanics' Association, 1112 Karpen Building, Chicago, or the registrar of any one of the three universities concerned.

### MILITARY SCHOLARSHIPS

Students who have had three semesters of class instruction in military science and four semesters of drill practise are eligible for appointment as commissioned officers of the University Corps of Cadets. To those attaining this rank, special military scholarships, good for one year, and equal in value to the university incidental fees for the year, are open. The amount of these scholarships is paid the holders at the close of the academic year. Appointments in the Corps of Cadets are made on the recommendation of the Commandant of Cadets, confirmed by the Council of Administration.

### OTHER SCHOLARSHIPS

For *scholarships in the College of Law*, see page 195.

For *scholarships in the Summer Session*, see page 189.

For *fellowships and graduate scholarships*, see under Graduate School, page 174.

# BENEFICIARY AID

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## EDWARD SNYDER DEPARTMENT OF STUDENTS' AID

In 1899 Edward Snyder, Professor of the German Language and Literature, *Emeritus*, gave the University the sum of \$12,000, to be lent to worthy students to enable them to finish their courses in the University.

This fund is available for junior, senior, and graduate students who need aid to remain and complete their work. The minimum loan made is fifty dollars; the maximum loan is one hundred fifty dollars to a junior, and two hundred dollars to a senior or graduate student. Notes of hand are taken for the amount of the loans, with five per cent interest. The maximum time limit is for juniors three years and for seniors and graduates two years from the ensuing thirtieth of June.

Loans are made only to matriculated students who have attained at least the full rank of junior, who have been in residence at the University at least one year, who are at the time students in residence at the University, and who have declared their intention to graduate.

In recommending loans, preference is given to those students who are most advanced in their university work, who have shown themselves most assiduous and successful in their studies, and have shown habitual economy in living. No distinction is made on account of sex or course of study. A loan will not be recommended for any student who is believed to have been financially or morally delinquent in any respect.

Applications for loans must be made in writing and addressed to the Chairman of the Loan Fund Committee.

## CLASS OF 1895 LOAN FUND

A fund of \$100 was established by the class of 1895, to be lent to needy and deserving students. According to the conditions of the gift, the sum of fifty dollars is to be lent annually, and the benefit of the fund is open only to students who, at the time of application, are members of the freshman class. The loan bears interest from the time the recipient leaves the University, and is due one-half in five years and one-half in six years after matriculation. The fund is in charge of the Loan Fund Committee of the Council of Administration. Applications should be made in writing and should be addressed to the Chairman of the Committee.

## GRADUATE CLUB LOAN FUND

A fund of \$75 was established by the members of the Graduate Club in 1907-1908, for the benefit of graduate students. Its administration is in the hands of the Loan Fund Committee of the Council of Administration. Applications should be made in writing and should be addressed to the Chairman of the Committee.

## WOMAN'S LEAGUE LOAN FUND

In December, 1910, the Woman's League of the University gave to the University the sum of \$409.44 to be known as the Woman's League Fund. This fund is available for any woman matriculated in the University and is administered in the same way as the Snyder Loan Fund.

## WILLIAM B. MCKINLEY LOAN FUND

In September, 1912, the Hon. William B. McKinley of Champaign, Illinois, turned over to the University notes aggregating something more than \$12,000, this amount as



it is collected to be used as a loan fund for undergraduate men. In making the donation, Mr. McKinley stipulated that loans should be made to students on their personal notes, and that a preference should be shown in making these loans to upperclassmen. The notes draw interest at five per cent and become due two years after the student's graduation. Applications for loans should be made in writing and should be addressed to the Chairman of the Loan Fund Committee.

### **HENRY STRONG LOAN FUND**

Mr. Gordon Strong, of Chicago, trustee of the Henry Strong Educational Fund, has for 1918-19 offered the University \$250 to be lent to self-supporting students of high scholastic attainments. The loan bears interest at four per cent and is payable within one year after graduation. The fund has been lent to one student.

### **MARGARET LANGE JAMES LOAN FUND**

In 1915 President Edmund J. James established the Margaret Lange James Loan Fund in memory of his wife. The original fund (\$5,000) given by President James has been supplemented by gifts from other persons, and the fund now amounts to about \$5,650.

Loans from this fund may be made to matriculated students, preferably women who have been in residence at the University at least one year, who have attained at least junior standing, and who are at the time of application students in residence, who have declared their intention to graduate. In recommending loans, only students of promise and good scholastic standing are considered, and, other things being equal, preference is given to those who are the farthest along in their University work. A loan is not recommended for any student who is believed to be financially or morally delinquent in any respect.

Applicants for loans are required to offer security other than their own signatures, and no member of the faculty or other person directly connected with the University is accepted as security for any student loan.

Loans bear interest until maturity at five per cent, payable semi-annually. The maximum time for which notes may be drawn is two years from the thirtieth day of June next following the student's regular time of graduation. Bank discount is charged for the time until the thirtieth day of June next following the date of the note. Interest at seven per cent is charged on all notes not paid at maturity.

Applications for loans must be made in writing and addressed to the Chairman of the Loan Fund Committee.

### **WOMAN'S PHARMACY LOAN FUND**

In May, 1917, the Woman's Organization of the Chicago Retail Druggists' Association gave to the University the sum of \$115, to be used in establishing a loan fund in the School of Pharmacy. This fund is to be lent to a deserving woman student, preferably from Illinois, who is enrolled in the School. The loan is made on the recommendation of the Dean and is to be repaid within three years for a junior student and within two years for a senior student, dating from the ensuing thirtieth of June. A note of hand bearing five per cent interest from the time the recipient leaves school is taken for the amount.

### **LIBRARY SCHOOL FUND**

The University of Illinois Library School Association has voted to make all surplus funds in its treasury available for loan to senior library school students. Over \$250 is available for that purpose on the vote of the School faculty.

**FIRST FUND FOR OVERSEAS SOLDIERS**

A fund of \$1000 was established in February, 1919, by an anonymous donor, for American soldiers and officers who have served in the military service in actual warfare in Europe or on the adjoining waters in 1917 and 1918, and for their descendants. This fund is to be available in their junior, senior, or post-graduate years to enable the applicants to remain and complete their work in any department of the University and in the first, second, third, or fourth year of any of the courses in agriculture in the University. The applicant is required to show papers of honorable discharge from the military service of the United States and one or more affidavits proving actual service in Europe, or proof, when such is the case, that he is a descendant of such soldier. The minimum loan is \$20 and the maximum total loan to any one person, \$200. The time limit is four years and the notes bear no interest. The fund is administered by the Loan Fund Committee.

# FEES AND EXPENSES

## GENERAL FEES

*All University fees are payable each semester in advance.*

**Colleges of Liberal Arts and Sciences, Commerce and Business Administration, Engineering, Agriculture, and Law, and Library School**

<i>Matriculation Fee.</i> Each student not holding a scholarship, on satisfying the requirements for admission to the University, pays the matriculation fee of . . .	\$10.00
<i>Incidental Fee.</i> All students, excepting those holding scholarships, pay, each semester, an incidental fee of . . . . .	15.00
<i>Tuition Fee.</i> Students conditioned on entrance requirements, and special students (except special students in agriculture or home economics holding scholarships), pay, each semester, a tuition fee of . . . . .	7.50
<i>Laboratory Fees.</i> Each student working in laboratories, or in the drafting or engineering classes, is required to pay a fee varying from \$0.50 to \$10.00, to cover materials and apparatus used and breakages or damages. (For a list of Laboratory Fees, see page 107.) . . . . .	
<i>Deposit for Military Uniform.</i> Male students, citizens of the United States, under 25 years of age, entering the University as freshmen or sophomores, make a deposit to cover the cost of the required military equipment of . . . . .	5.00
<i>Listener's Fee.</i> Persons not connected with the University who attend classes as listeners, pay for each course, each semester . . . . .	7.50
<i>Late Registration Fee.</i> A former student who enters after the Registration Days in either semester must pay a late registration fee of . . . . .	1.00
<i>Change Fee.</i> For every change of study-list made later than the tenth day of instruction of either semester a fee of \$1.00 is charged, except that the total charge for the rearrangement authorized on any one change-slip shall not exceed \$2.00. . . . .	1.00
<i>Special Examination Fee.</i> For any special examination, except examinations for advanced standing taken within sixty days after matriculation, the fee is . . .	5.00
<i>Diploma Fee</i> . . . . .	5.00

## School of Music

### College Courses

Matriculated students, residents of Illinois, pay, each semester, the incidental fee \$15.00

All other students (including matriculated students not residents of Illinois and all conditioned and special students), pay, each semester:

If they take music only, special music fees, as follows:

For two lessons a week . . . . .	\$32.50
For one lesson a week . . . . .	19.50
For harmony, counterpoint, fugue, etc. . . . .	9.00

*Fees and Expenses*

If they take, in addition to music, subjects in other departments:

(1) The incidental fee.....	\$15.00
(2) Unless matriculated, the tuition fee.....	7.50
(3) Special music fees, as follows:	
For two lessons a week.....	\$25.00
For one lesson a week.....	15.00
(4) For harmony, counterpoint, fugue, etc.....	9.00

*Preparatory Courses*

Students taking music only pay, each semester, special music fees as follows:

For two lessons a week.....	\$19.50
For one lesson a week.....	11.00

Students taking, in addition to music, subjects in other departments, pay, each semester:

(1) The incidental fee.....	\$15.00
(2) Unless matriculated, the tuition fee.....	7.50
(3) Special music fees, as follows:	
For two lessons a week.....	\$15.00
For one lesson a week.....	8.50

*Additional*

Use of a piano for practise one hour a day, each semester.....	\$3.00
Additional hours at the same rate.	
Use of organ for practise one hour a day:	
For one semester.....	\$20.00
For one-half semester.....	10.00
Special students, taking music only, may enter classes in physical education on paying each semester.....	7.50
Diploma fee.....	5.00

*College of Medicine**Freshman Year*

Matriculation <sup>1</sup> .....	\$ 10.00
Registration.....	5.00
Laboratory.....	30.00
General Tuition.....	120.00
Total.....	\$165.00

*Sophomore Year*

Registration.....	\$ 5.00
Laboratory.....	35.00
General Tuition.....	120.00
Total.....	\$160.00

*Junior Year*

Registration.....	\$ 5.00
Laboratory.....	5.00
General Tuition.....	140.00
Total.....	\$150.00

<sup>1</sup> Not payable if the student has previously matriculated in any other college of the University of Illinois.

## Fees and Expenses

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### Senior Year

Registration.....	\$ 5.00
General Tuition.....	155.00
Diploma fee.....	5.00
<hr/>	
Total.....	\$165.00

### College of Dentistry<sup>1</sup>

Matriculation fee, paid but once, first year.....	\$ 10.00
Registration fee, second, third and fourth years.....	5.00
Tuition, each year (including laboratory and dissection fees).....	150.00
Diploma fee.....	5.00

### School of Pharmacy

Matriculation fee, paid but once.....	\$ 10.00
Registration fee, each year.....	5.00
Tuition fee, first and second years.....	90.00
Tuition fees, third year.....	125.00
Laboratory deposit, first and second years.....	10.00
Laboratory deposit, third year.....	15.00
Diploma fee.....	5.00

### LABORATORY FEES (FOR MATERIALS) 1918-19

(The fees given below are in each case for one quarter only; where a course runs through three quarters, the fee is to be paid each quarter.)

Bacteriology W2		Botany 27-2.....	\$ 1.50
For registered students.....	No fee	Botany 28 (per hr.).....	.50
For students not otherwise registered.....	\$ 5.00	Botany W28a-1 (per hr.).....	.50
Bacteriology W5.....	5.50	Botany 28-3 (per hr.).....	.50
Bacteriology 5.....	5.50	Botany 101 (per hr.).....	.50
Bacteriology 8.....	5.00	Botany 102 (per hr.).....	.50
Bacteriology 20.....	5.00	Botany 104.....	2.00
Bacteriology 26.....	5.50	Botany 106.....	4.00
Bacteriology 103.....	2.00	Ceramics W1.....	3.00
Bacteriology 105.....	2.00	Ceramics 1a.....	1.50
Botany W1.....	1.50	Ceramics 1b.....	1.00
Botany 1.....	1.50	Ceramics 1c.....	1.50
Botany W2a-1.....	1.00	Ceramics 5a.....	3.00
Botany 2a-b.....	1.00	Ceramics 5b.....	5.00
Botany 2b.....	1.00	Ceramics W6.....	4.50
Botany 3a.....	2.00	Ceramics 6a.....	3.50
Botany 4.....	1.00	Ceramics 6b.....	3.50
Botany 4a.....	1.00	Ceramics 6c.....	4.50
Botany W4d-1.....	1.00	Ceramics 11.....	3.50
Botany 4d-2.....	1.00	Ceramics 19.....	3.50
Botany W7a.....	2.00	Ceramics 102.....	3.50
Botany 7a.....	2.00	Ceramics 103.....	5.50
Botany 7b.....	2.00	Ceramics 105.....	5.50
Botany W7.....	1.00	Chemistry W1.....	5.50
Botany W9a-1 (per hr.).....	.50	Chemistry 1.....	5.50
Botany 9a-2 (per hr.).....	.50	Chemistry W1a.....	3.00
Botany 9b (per hr.).....	.50	Chemistry 1a.....	3.00
Botany 16b.....	1.00	Chemistry W1b.....	4.00
Botany W17a-1.....	1.00	Chemistry W2a.....	5.50
Botany 17-2.....	1.00	Chemistry W2a (½ qt.).....	3.50
Botany 17-3.....	1.00	Chemistry 2b.....	6.50
Botany W22a-1 (per hr.).....	.50	Chemistry 2c.....	6.50
Botany 22b (per hr.).....	.50	Chemistry 2d.....	5.50
Botany W23-1.....	1.00	Chemistry 2e.....	5.50
Botany 23-2.....	1.00	Chemistry 2f.....	8.00
Botany 25.....	1.00	Chemistry 3a.....	4.50
Botany W25a-1.....	1.00	Chemistry 3b.....	5.50
Botany 25b.....	1.00	Chemistry W4.....	5.50
Botany W27a-1.....	1.50	Chemistry 4.....	5.50
Botany 27b.....	1.00	Chemistry 4a.....	5.50

<sup>1</sup> Students taking gross anatomy are required to make a deposit of \$5.00 for bones

Chemistry 4b.....	\$ 5.50	Entomology 14.....	\$ 1.00
Chemistry W5a.....	7.00	Entomology W18.....	1.00
Chemistry 5b.....	7.00	Entomology 18.....	.50
Chemistry 5c.....	7.00	Entomology 102.....	1.00
Chemistry 9c.....	10.00	Entomology 108.....	1.00
Chemistry 10a.....	3.50	Entomology 109.....	1.00
Chemistry W11a (per hr.).....	1.50	G. E. D. W1.....	4.00
Chemistry 11a (per hr.).....	1.50	G. E. D. W2.....	4.00
Chemistry W11b (per hr.).....	1.50	G. E. D. 2 (2nd quarter).....	2.50
Chemistry 11b (per hr.).....	1.50	G. E. D. 2 (3rd quarter).....	1.00
Chemistry 13a.....	5.50	G. E. D. 2 and 1.....	2.50
Chemistry 13b.....	4.00	Geology W1.....	1.00
Chemistry W14c.....	10.00	Geology 1.....	1.00
Chemistry 14c.....	10.00	Geology W1a.....	1.00
Chemistry W14d.....	10.00	Geology 2.....	1.00
Chemistry 14d.....	10.00	Geology W6.....	1.00
Chemistry W15.....	5.50	Geology 7.....	1.50
Chemistry 15b.....	4.50	Geology W9a.....	1.00
Chemistry 16.....	3.50	Geology W20.....	1.50
Chemistry W21.....	8.00	Geology 47.....	1.50
Chemistry 21.....	11.00	Home Economics 1.....	2.00
Chemistry W25a.....	7.00	Home Economics W4.....	3.50
Chemistry 27.....	5.50	Home Economics 4.....	2.00
Chemistry 33.....	8.00	Home Economics W5a.....	3.00
Chemistry 35.....	7.50	Home Economics 5b.....	3.00
Chemistry 61.....	4.50	Home Economics W6.....	2.00
Chemistry 65.....	5.00	Home Economics 6.....	2.00
Chemistry W66a.....	2.00	Home Economics W10a.....	1.00
Chemistry W69.....	3.50	Home Economics 10b.....	1.00
Chemistry W72.....	3.00	Home Economics W14.....	7.50
Chemistry 73.....	3.00	Home Economics W14a.....	7.50
Chemistry 78.....	5.00	Home Economics 14b.....	7.50
Chemistry 103.....	7.00	Home Economics 14c.....	7.50
Chemistry 103a.....	7.00	Home Economics 17.....	2.00
Chemistry 104.....	3.50	Home Economics W18a.....	6.00
Chemistry 104a.....	3.50	Home Economics 18b (2nd qt.).....	3.50
Chemistry 105a (per hr.).....	1.50	Home Economics 18b (3rd qt.).....	2.50
Chemistry 110.....	7.00	Home Economics 33.....	2.00
Chemistry 111 (per hr.).....	1.50	Mechanical Eng. W23.....	.50
Civil Eng. W17.....	.50	Mechanical Eng. 61.....	2.00
Civil Eng. W27.....	.50	Mechanical Eng. 64.....	2.00
Civil Eng. 27a.....	.50	Mechanical Eng. W65.....	2.00
Civil Eng. 28.....	.50	Mechanical Eng. 65.....	2.00
Civil Eng. W51.....	1.00	Mechanical Eng. 66.....	3.00
Civil Eng. 51.....	.50	Mechanical Eng. W75.....	2.00
Civil Eng. 58.....	.50	Mechanical Eng. 75 (2nd qt.).....	1.00
Civil Eng. 60.....	.50	Mechanical Eng. 75 (3rd qt.).....	2.00
Civil Eng. 62.....	.50	Mechanical Eng. W77.....	2.00
Civil Eng. W79.....	1.00	Mechanical Eng. 77 (2nd qt.).....	3.00
Civil Eng. 79.....	1.00	Mechanical Eng. 77 (3rd qt.).....	2.00
Civil Eng. 82.....	.50	Mechanical Eng. W79.....	2.00
Civil Eng. W83.....	1.00	Mechanical Eng. 79 (2nd qt.).....	1.00
Civil Eng. W85.....	1.00	Mechanical Eng. 79 (3rd qt.).....	2.00
Civil Eng. 93.....	.50	Mechanical Eng. W81.....	1.50
Civil Eng. 96.....	1.00	Mechanical Eng. 81.....	2.00
Electrical Eng. W61.....	1.00	Mechanical Eng. 82.....	2.00
Electrical Eng. 61.....	1.00	Mechanical Eng. 82b.....	2.00
Electrical Eng. 62.....	1.00	Military W20—	
Electrical Eng. 64.....	1.00	For registered students.....	1.50
Electrical Eng. W68.....	1.00	For persons not otherwise registered.....	10.00
Electrical Eng. W75.....	1.00	Military 30—	
Electrical Eng. 75.....	1.50	For registered students.....	No fee
Electrical Eng. 76.....	1.50	For students not otherwise registered.....	5.00
Electrical Eng. W85.....	1.50	Mining Eng. W9.....	1.00
Electrical Eng. 85.....	1.50	Mining Eng. 9.....	1.50
Electrical Eng. 86.....	1.50	Mining Eng. 19a.....	1.50
Entomology W1.....	1.00	Mining Eng. W62.....	1.00
Entomology 1a.....	1.00	Mining Eng. 62.....	1.00
Entomology 1b.....	1.00	M. & S. E. W2.....	.50
Entomology W2.....	1.00	M. & S. E. 3.....	1.00
Entomology 2.....	1.00	M. & S. E. W6a.....	1.00
Entomology W4.....	2.00	M. & S. E. 6c.....	1.00
Entomology 4.....	2.00	M. & S. E. 9.....	1.00
Entomology W5.....	1.00	Photography W1.....	3.00
Entomology 5.....	1.00	Photography 1.....	3.00
Entomology 6.....	1.00	Photography 2.....	3.00
Entomology W6a.....	1.00	Physical Education for Women.....	.50
Entomology W7.....	1.00	(NOTE: This fee is for a gymnasium locker	
Entomology 7.....	1.00	and should be collected in every case where	
Entomology W8.....	1.00	a woman is enrolled for one or more courses	
Entomology 8.....	1.00	in physical education)	
Entomology W10.....	1.00	Physics W2a.....	1.50
Entomology 10.....	1.00	Physics W3a.....	1.50
Entomology 13.....	1.00	Physics 3b.....	1.50

1 Maximum \$7.00.

Physics 3c.....	\$ 1.50	Psychology W3.....	\$ 2.00
Physics W4a.....	1.50	Psychology 3.....	2.00
Physics 4b.....	1.50	Railway Eng. 63.....	2.00
Physics 4c.....	1.50	T. & A. M. W15.....	1.00
Physics W8a.....	1.50	T. & A. M. 15.....	1.00
Physics 8b.....	1.50	T. & A. M. W31.....	2.00
Physics 8c.....	1.50	T. & A. M. 32.....	1.00
Physics 10b.....	1.50	T. & A. M. W33.....	2.00
Physics 10c.....	1.50	T. & A. M. 33.....	2.00
Physics W15.....	1.50	T. & A. M. 34.....	1.00
Physics 17.....	1.50	Zoology W1.....	2.00
Physics 18.....	1.00	Zoology 1.....	2.00
Physics 22.....	1.50	Zoology 1a.....	2.00
Physics 23.....	2.00	Zoology 2.....	2.50
Physics 27.....	1.50	Zoology W2a.....	2.00
Physics W31a.....	1.50	Zoology W3.....	2.00
Physics 31a.....	1.50	Zoology 4.....	2.50
Physics 31c.....	1.50	Zoology 6.....	2.00
Physics W32.....	1.50	Zoology 6a.....	2.00
Physics W36.....	1.50	Zoology 9.....	2.00
Physiology W1.....	2.50	Zoology W11.....	2.00
Physiology 2.....	1.50	Zoology W17a.....	.50
Physiology W3.....	2.50	Zoology 17b.....	.50
Physiology W4.....	2.50	Zoology 18.....	1.00
Physiology 4.....	1.50	Zoology W22a.....	1.50
Physiology 10.....	2.50	Zoology 22b.....	1.50
Physiology 11.....	2.50	Zoology 23a.....	1.50
Physiology 103.....	2.50	Zoology W25.....	2.00

**AVERAGE ANNUAL EXPENSES**

The following are estimated average annual expenses for undergraduate students attending at Urbana, *exclusive* of books, clothing, railroad fare, laboratory fees, if any, and small miscellaneous needs:

Semester fees <sup>1</sup> .....	\$ 30.00 to \$ 60.00
Room rent for each student (two in room).....	72.00 to 110.00
Table board in boarding houses and clubs.....	198.00 to 234.00
Washing.....	20.00 to 30.00
Total.....	\$320.00 to \$404.00
Board and room in private house, a week.....	\$ 5.50 to \$ 6.50

In addition to the foregoing, freshmen pay a matriculation fee of \$10.00, and the men are required to buy military equipment, for which a charge of \$5.00 is made. Freshmen engineering students will need to buy a set of drawing instruments at a cost of about \$20.00, and other drawing equipment costing about \$10.00.

Other necessary expenses will need to be taken into consideration. For all the necessary expenses of the year the average student is likely to need not less than \$400.00 to \$550.00. Most students spend more than this amount.

For information in regard to scholarships which cover the matriculation and incidental fee, see page 98.

**Board and Rooms**

The University does not provide dormitories nor furnish board, but the numerous rooming and boarding houses near the campus are to a certain extent under the supervision of the University. The Young Men's and Young Women's Christian Associations of the University will aid new students in securing rooms and board.

*Prospective women students and their parents are invited to correspond with the Dean of Women in regard to suitable places.*

<sup>1</sup>Students of music, special students, and conditioned students must make needed changes in the amount given for "semester fees."



PART II  
THE COLLEGES AND SCHOOLS



# THE COLLEGE OF LIBERAL ARTS AND SCIENCES

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For a description of the *buildings* used by this College, see page 49; for *museums* and *collections* belonging to it (classical art and archeology, oriental, education, European culture, botany, entomology, geology, and zoology), see pages 58-60; for a summary of its *courses*, see page 63; for *clubs and societies* auxiliary to its curriculums see page 96; for *fees*, see page 105.

## ORGANIZATION

The organization of the College of Liberal Arts and Sciences, in which are merged the former College of Literature and Arts and College of Science, became fully effective on July 1, 1913, following an action of the Board of Trustees taken on July 5, 1912. In September, 1916, a new schedule of requirements for admission to the College of Liberal Arts and Sciences went into full operation. Changes in the requirements for graduation with the degree of Bachelor of Arts have been worked out by the Faculty and approved by the Board of Trustees. These are described on pages 114-116.

## PURPOSE

The purpose of the College of Liberal Arts and Sciences is, first, to secure to its students a liberal education including both the humanities and the sciences; second, to furnish especially arranged curriculums preparatory to later professional and technical studies by which good students may ordinarily obtain in six years both the degree in arts and a professional degree in law or medicine, or a technical degree in engineering; and, third, to provide certain highly specialized curriculums in applied science (particularly chemistry), journalism, and home economics. The degree of Bachelor of Arts is conferred on the completion of all these curriculums, except those in applied science, for which the degree of Bachelor of Science is given.

Under the modified elective system a student who desires to prepare for teaching may specialize to a considerable extent in the subject which he wishes to teach and may also find time for courses in education and related subjects of interest to teachers. Such students should, as a rule, continue their preparation in the Graduate School.

Students who desire to devote a considerable part of their undergraduate study to specific preparation for some calling other than teaching may select courses in law, medicine, dentistry, journalism, or applied chemistry, or household administration, in accordance with curriculums given in detail in the following pages.

## ADMISSION

See the statement of the entrance requirements of the University, pages 65-81.

## SPECIAL STUDENTS

For a statement of the regulations of the University in regard to special students, see page 72.

It is the policy of this College to admit as special students only a select group of mature and serious persons who, tho unable to meet the formal requirements for entrance, are substantially prepared for work of college grade, and have a specific and clearly defined purpose in their study.

**REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ARTS**

A. *University Requirements.*—Each candidate must meet the general University requirements with respect to registration and residence, and must also secure credit in approved courses amounting to one hundred thirty hours, an hour being one class period a week for one semester. Each class period presupposes two hours preparation by the student, or the equivalent in the laboratory or drawing room.

B. *Prescribed Subjects.*—Rhetoric 1-2; Physical Education 1-2 and 1a for men; Physical Education 7a-7b and 9 for women; Military Science 1, 2, 3, 4, for men.

C. *Group Requirements.*—Every candidate must offer the minimum of work specified in each of the following groups:

I. *English.*—The offering in this group must include at least a one-semester course in literature.

II. *Foreign Languages and Literatures* (exclusive of courses in translation).

If a student has offered but two units of a foreign language for entrance to the University, he must pursue the study of foreign language through two-year courses or the equivalent. If he has offered for entrance three or more units of foreign language, he must continue the study of foreign language through one year of his college course.

*Note:* Candidates for the degree who have not offered Greek or Latin or French or German for entrance must offer one of these languages for graduation.

III. *History, Political and Social Science.*—History, economics, political science, sociology: 8 hours.

IV. *Mathematics and Physical Science.*—Mathematics, astronomy (courses with college mathematics as prerequisites), physics, chemistry: a minimum of 5 hours, with a minimum total of 15 hours in Groups IV and V.

V. Botany, including bacteriology, entomology, geology, physiology, zoology: a minimum of 5 hours, with a minimum total of 15 hours in Groups IV and V.

VI. Education, philosophy, psychology: 6 hours, of which 3 shall be in philosophy or psychology.

D. *Major Subjects.*—Each candidate must select some subject as his major. A major consists of courses amounting to 20 hours chosen from among those designated by a department and approved by the faculty of the college. Such courses are to be exclusive of those elementary or beginning courses which are open to freshmen, and inclusive of some distinctly advanced work. At least five hours of the work accepted for a major must have been done in residence at this University and included within the maximum credits allowed in any one division. See the statements regarding majors under departmental announcements in Part III.

The subjects at present recognized as majors in this college are: Astronomy, bacteriology, botany, chemistry, classics, education, economics, English, entomology, French, geology, German, Germanic languages, Greek, history, home economics, Latin, mathematics, philosophy, physiology, physics, political science, psychology, Romance languages, sociology, Spanish, zoology.

E. *Minor Subjects.*—Each candidate must offer, in addition to his major, a minor of 20 hours in one or more allied subjects designated by the major department and approved by the faculty of the college. *At least 8 hours must be offered in one subject.* See the statements regarding minors under departmental announcements in Part III.

F. *Elective Subjects.*—

1. Not more than 40 hours in any one subject may be counted for graduation, except: (a) in special curriculums approved by the faculty of the college; (b) when a student is writing a thesis, he may count, in addition to the 40 hours, the hours of the course in

which he does his thesis work; (c) in the department of English a student may take 40 hours in addition to Rhetoric 1-2.

*Note:* The total credit in art and design is limited to 20 hours.

2. No credit is granted in any subject unless the student pursues it for the full time required in the shortest course offered in that subject. For example, if the student elects a course which yields two hours for one semester, he must stay in the class during one semester in order to get any credit at all. *In order to secure any credit in a beginning course in a foreign language, a full year's work must be completed.*

3. A limited amount of credit toward the degree of Bachelor of Arts is ordinarily given for courses offered in other colleges and schools of this University, as follows:

### Electives in other Colleges and Schools

#### *College of Agriculture:*

Agricultural Extension 1 (High School Agriculture).

Agronomy 9 (Soil Physics), 11 (Soil Biology), 12 (Soil Fertility), 22 (Plant Breeding).

Animal Husbandry 7 and 31 (Animal Nutrition), 30 (Genetics).

Dairy Husbandry 11, 12a-12b (Dairy Bacteriology).

Horticulture 9 (Forestry), 12 (Horticultural Evolution), 36 (History of Landscape Gardening), 37a (Civic Design), 42 (Landscape Design).

The total credit allowed in agricultural courses may not exceed 14 hours except to students who do major work in entomology, who may be allowed 20 hours to be chosen from the above courses with the addition of Agronomy 7 and 25, and Horticulture 1a, 1b, 2, 3, 6 and 7.

#### *College of Commerce and Business Administration:*

Accountancy 1a-1b (Principles of Accounting), 13 (Municipal Accounting).

Business Organization 1 (Business Organization), 9 (Commercial and Civic Organizations).

Business Law 1a-1b (Commercial Law,—no credit given to students in the combined arts-law curriculum).

Economics, all courses except 9, 14, 15, 32, 34.

Transportation 1 (U. S. Transportation System), 2 (Transportation Policy).

The total credit allowed for courses in Commerce may not exceed 40 hours.

#### *College of Engineering:*

Architecture 13, 14, 15, 16 (History of Architecture), 31, 32 (Architectural Drawing).

Civil Engineering 27 and 28 or 33 and 34 (Surveying), 94 (Highway Administration).

Drawing, General Engineering 1 (Elements of Drafting), 2 (Descriptive Geometry).

Electrical Engineering 4 and 64 or 8 and 68.

Mechanical Engineering 11, 12 (Thermodynamics), 30 (Mechanics of Machinery).

Mechanics, Theoretical and Applied, all courses.

The total credit allowed in engineering courses may not exceed 24 hours.

#### *College of Law:*

A student in the College of Liberal Arts and Sciences, who earns at least 30 hours in this college, may take and count towards the degree of Bachelor of Arts not to exceed 30 hours of work in the College of Law, provided that not less than two courses amounting to at least five hours are taken each semester, under the advice of the Dean of the College of Law as to the courses to be taken. Courses in law may not be taken before the junior year by students enrolled in this college.

Law 14 (Carriers), 24 (Municipal Corporations), 28 (Insurance), and 34 (Public Utilities) are open to students of this college offering political science or economics as a major

subject who have had a previous course in law or political science involving the study of cases.

*Library School:*

Library Science 2a-2b or 12 (Reference), 7 (History of Libraries), 9 (Bookmaking), 13a-13b (Public Documents).

*School of Music:*

The total credit allowed for courses in music may not exceed 16 hours. At least one-half the credit must be taken in courses in the history and theory of music (1-14 inclusive). Credit may be allowed in practical music for courses preceded by Music 3 and 4 and exclusive of courses open to freshmen to an amount not to exceed one-half of the total allowed any student. No credit will be allowed for courses in public school music.

*Physical Education:*

Not to exceed 5 semester hours for men and 7 semester hours for women.

*Military Science and Tactics:*

Military Science not to exceed 8 semester hours.

G. *Bachelor's Thesis:* A bachelor's thesis is not generally required in this college. Students of high standing are, however, encouraged to write theses in connection with their major studies. Credit toward the degree is given for thesis work only as part of the work in some course for which the student is registered. The presentation of a thesis is required of all candidates for the honor degree. See page 84.

H. *Optional Degree of Bachelor of Science:* Students who do major work in one of the subjects in Groups IV or V, or in home economics, on petition to and recommendation of the faculty may be graduated with the degree of Bachelor of Science instead of Bachelor of Arts.

## ARRANGEMENT OF COURSES

### First Year

#### *Subjects Prescribed for Freshmen*

The following subjects must be taken during the freshman year: *Rhetoric* 1-2,<sup>1</sup> three hours each semester; *Military* 1a, 1b, one hour first semester, and *Military* 2a, 2b, one hour second semester (for men); *Physical Education* (Physical Education 1-2 and 1a for men; 7a-7b and 9 for women).

#### *Freshmen Electives*

The following subjects are open to freshmen. The total amount including military and physical training taken in any semester is limited to eighteen hours and should not be less than fifteen. These courses are here scheduled according to the usual semester hours, and not according to the quarters and quarter hours of the program of 1918-19.

#### FIRST SEMESTER

I. English 10<sup>2</sup> (3);<sup>3</sup> *Rhetoric* 1 (3), or 2 (3).

II. French 1a (4) or 1b (4) or 2a (4); German 1 (4) or 2 (4) or 4 (4) or 5 (4); Greek 1a (4) or 3 (3); Latin 1a (4) or 2a (4) or 6 (4); Spanish 1a (4) or 2a (4) or 3a (3); Italian 1a (4).

<sup>1</sup> See special examination in *Rhetoric* 1, page 72.

<sup>2</sup> English 10-11 is open only to freshmen who have presented the minimum amount of English required for admission. See the description of this course, page 298.

<sup>3</sup> The figure immediately following the subject is the number of the course (see page 237), the figure in parenthesis indicates the number of credit hours to be secured in the course each semester.

III. Economics 7 (3) and 26 (3); History 1a (4) or 2a (3).

IV. Mathematics 2<sup>1</sup> (3) and 4<sup>1</sup> (2) [prerequisite: entrance algebra, 1½ units and plane geometry, 1 unit], 3 (5); Chemistry 1<sup>1</sup> (5) or 1a<sup>2</sup> (3); Physics 7a<sup>2</sup> and 8a<sup>2</sup> (5).

V. Botany 1<sup>1</sup> (5); Entomology 1a<sup>1</sup> (3), 1b (3), 14 (3); Geology 1<sup>1</sup> (5), 14 (3), 35 (5); Zoology 1<sup>1</sup> (5).

Home Economics 2 (2) or 7 (2).

Library Science 12<sup>3</sup> (2).

Art and Design 1<sup>3</sup> (3).

## SECOND SEMESTER

I. English 11<sup>4</sup> (3);<sup>1</sup> Rhetoric 1 (3) or 2 (3).

II. French 1a (4) or 1b (4) or 2b (4); German 1 (4) or 3 (4) or 4 (4) or 5 (4) or 6 (4) or 7 (4); Greek 1b (4), or 4 (4), Latin 1b (4), or 2b (4); Spanish 1a (4) or 1b (4) or 2b (4) or 3b (3); Italian 1b (4).

III. Economics 22 (3) and 27 (3); History 1b (4) or 2b (3).

IV. Mathematics 2 (3) and 4 (2) [prerequisite: entrance algebra 1½ units, and plane geometry, 1 unit], 6 (5); Astronomy 4 (5); Chemistry 1<sup>1</sup> (5) or 1a<sup>1</sup> (3) or 2a (5); Physics 7b and 8b (5).

V. Botany 1<sup>1</sup> (5), 2b (5), 3a (5), 4 (3), 4a (5), 24 (3), 27b (5); Entomology 1a (3) 1b (2); Geology 1 (5), 22 (3), 35 (5); Zoology 1<sup>1</sup> (5), 2 (5), or 16 (2).

Home Economics 1<sup>5</sup> (3) or 7 (2).

Library Science 12<sup>1</sup> (2).

Art and Design 1<sup>1</sup> (2), 2 (2), 10 (1), 12 (2).

## Second Year

Male students must continue Military throughout the second year. Students who have failed to secure credit for any of the prescribed subjects of the freshman year must make up such deficiencies at this time.

## Election

Aside from the subjects prescribed for the first two years, each student selects, with the advice of the Dean or other college advisers, such courses as will enable him to meet the requirements for graduation as stated above.

## CURRICULUM IN JOURNALISM

Students who are preparing for reportorial, literary, or editorial work in journalism should take their major work in English, and make up their study schedules from the following suggested curriculum. With the consent of the adviser, other studies may, for purposes of specialization, be substituted for those suggested. A program which satisfies the group and major requirements may, for instance, be so modified in the third and fourth years as to lay emphasis on any one of the social sciences.

Students in journalism with major in English are subject to the requirements of the General Curriculum in Liberal Arts and Sciences.

<sup>1</sup> Either semester.

<sup>2</sup> Prerequisite: Mathematics 4 (Trigonometry) which may be taken at the same time.

<sup>3</sup> May be taken either semester, but not in both.

<sup>4</sup> English 10-11 is open to freshmen who have presented the minimum amount of English required for admission. See the description of this course, page 298.

<sup>5</sup> Prerequisite: Entrance credit in Physics, and Chemistry 1 or 1a.

Curriculum in Journalism<sup>1</sup>

(Major in English)

## FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
<i>Prescribed Subjects</i>	Hours <sup>2</sup>	<i>Prescribed Subjects</i>	Hours <sup>2</sup>
Rhet. 1—Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3
Phys. Ed. 1 and 1a—Gymnasium and Hygiene.....	1	Phys. Ed. 2—Gymnasium.....	1
Military 1a—Military Drill.....	$\frac{1}{2}$	Mil. 2a—Military Drill.....	$\frac{1}{2}$
Military 1b—Military Theory.....	$\frac{1}{2}$	Mil. 2b—Drill Regulations.....	$\frac{1}{2}$
Total.....	5	Total.....	5
<i>Suggested Electives</i>		<i>Suggested Electives</i>	
Eng. 10—Introduction to Literature—or sci- ence.....	3 or 5	Eng. 11—Introduction to Literature—or sci- ence.....	3 or 5
Foreign language.....	4	Foreign language.....	4
Hist. 1a—Continental European History.....	4	Hist. 1b—Continental European History.....	4
Lib. 12—General Reference.....	2		

## SECOND YEAR

<i>Prescribed Subjects</i>		<i>Prescribed Subjects</i>	
Mil. 3a—Military Drill.....	$\frac{1}{2}$	Mil. 4a—Military Drill.....	$\frac{1}{2}$
Mil. 3b—Military Theory.....	$\frac{1}{2}$	Mil. 4b—Military Theory.....	$\frac{1}{2}$
<i>Suggested Electives</i>		<i>Suggested Electives</i>	
Eng. 1—Survey of English Literature.....	4	Eng. 1—Survey of English Literature.....	4
Eng. 12—American literature.....	2	Pol. Sci. 3—State and Local Government.....	3
Science.....	3 or 5	Econ. 3—Money and Banking.....	3
Foreign language continued.....	4	Eng. 23—Shakespeare.....	3
Hist. 3a—History of United States.....	3	Eng. 13—American Literature.....	2
Pol. Sci. 1—American National Government or Econ. 1—Principles of Economics.....	5	Foreign language continued.....	4
Jour. 1—News Writing.....	3	Hist. 3b—History of United States.....	3
		Jour. 2—The Newspaper.....	3

## THIRD AND FOURTH YEARS

Study lists for these years should be selected from the following list with regard to proper sequence.

Econ. 5, or 10, or 12a—Public Finance, or Corporation Management, or Labor Prob- lems.....	3	Bus. Org. and Op. 10—Organization and Operation of Newspaper Publishing.....	2
English 27 and 21, or 33 or 45—History of Journalism; The Bible; or Literature from 1789 to 1837; or Modern Drama.....	2 or 3	Econ. 11, or 13, or 21—Industrial Consolida- tion, or Econ. Hist. of Europe, or Socialism and Social Reform.....	3 or 2
History 21—U. S. since 1877, or 26—The Latin American Colonies.....	3	English 28 and 24 or 3 or 5—Hist. of Journal- ism, Victorian Period, Milton, Shakespeare	2 or 3
Language.....	4	History 17, 27, 29—Hist. of Illinois, Latin America, The Far East.....	3 or 2
Philosophy 1—Logic, and Phil. 9—Political Ethics, or Pol. Sci. 5—Const. Law.....	3 or 2 or 4	Language.....	4
Pol. Sci. 14—Political Parties, or Pol. Sci. 4—Municipal Government.....	3	Philosophy 2—Intro. to Phil.....	3
Psychology 1—Intro. to Psychology.....	3	Pol. Sci. 18, or 28—Contemporary Politics...	3 or 2
Rhet. 6, 16, Jour. 3, 5—Short Story, Editorials and Special Articles, Editorial Practise, Newspaper Problems.....	3	Psychology 1—Intro. to Psychology.....	3
Sociology 1—Principles of Sociology.....	3	Rhet. 16, 17, Jour. 3, 6—Editorials and Special Articles, Advanced Composition, Editorial Practise, Making a Country Newspaper...	2 or 3
		Sociology 9—Criminology.....	3

## CURRICULUM PRELIMINARY TO LAW

It is recognized by the best authorities on legal education that professional studies in law should be preceded by a thoro course in the humanities and the sciences. As a foundation for the study and practise of law, the following subjects offered by this College are of special importance: English, with special reference to composition and public speaking; Latin and French; logic; constitutional and political history; political science; economics; sociology.

<sup>1</sup>For new additional courses in journalism see the description of courses beginning on page 235, under English (Rhetoric).

<sup>2</sup>Semester hours. For definition, see page 237.



## Suggested Two-year Curriculum Preparatory to Law

## FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
Foreign language.....	4	Foreign language.....	4
Hist. 2a—English History.....	3	Hist. 2b—English History.....	3
Mathematics or science.....	5	Math. 2—Trigonometry.....	3
Rhet. 1—Rhetoric and Themes.....	3	Rhet. 1—Rhetoric and Themes.....	3
Phys. Ed. 1 and 1a—Gymnasium and Hygiene	1	Phys. Ed. 2—Gymnasium.....	1
Mil. 1a—Military Drill.....	$\frac{1}{2}$	Mil. 2a—Military Drill.....	$\frac{1}{2}$
Mil. 1b—Military Theory.....	$\frac{1}{2}$	Mil. 2b—Military Theory.....	$\frac{1}{2}$
Total.....	17	Total.....	15

## SECOND YEAR

Econ. 1—Principles of Economics.....	5	Econ. 3—Money and Banking.....	3
Hist. 3a—History of the U. S.....	3	Eng. 20—Chief English Writers.....	4
Mathematics or science or foreign languages..	5 or 4	Hist. 3b—History of the U. S.....	3
Pol. Sci. 1—American Government.....	3	Philos. 1—Logic.....	3
Mil. 3a—Military Drill.....	$\frac{1}{2}$	Pol. Sci. 3—State and Local Government....	3
Mil. 3b—Military Regulations.....	$\frac{1}{2}$	Mil. 4a—Military Drill.....	$\frac{1}{2}$
		Mil. 4b—Military Theory.....	$\frac{1}{2}$
Total.....	17 or 16	Total.....	17

By the proper selection of his studies it is possible for a prospective law student to take both the degree in arts and the degree in law in six years. During his junior and senior years a student in the College of Liberal Arts and Sciences who has earned at least 30 hours in this college may take and count toward the degree of Bachelor of Arts not to exceed 30 hours of credit in law. *Students in this College are not permitted to begin this work in law until their junior year.* If the student is also a candidate for the degree of Bachelor of Laws or Doctor of Law, he must in each semester of his fourth year register both in the College of Law and in the College of Liberal Arts and Sciences.

The degree of Bachelor of Arts is conferred at the close of the fourth year of the combined course provided that all the requirements for the degree are met at that time.

Students admitted to this University from other institutions may count the above courses in law for the degree of Bachelor of Arts only on condition of completing at least 30 hours' work in residence in subjects offered by the College of Liberal Arts and Sciences.

## HOME ECONOMICS

The courses of instruction given in this department are planned to meet the needs of four classes of students: (a) those students who desire a knowledge of the general principles and facts of home economics; (b) those students who wish to make a specialty of home economics for the purpose of teaching the subject in secondary schools and colleges; (c) those students who wish some knowledge of the principles underlying household administration and institutional management; (d) those students who are interested in the work of dietitians.

The suggested curriculums for teachers and for institutional workers are outlined below. The first three years of the curriculum as outlined for teachers give a scientific basis for the work of the dietitian. Students who wish to be recommended by the department for teaching, whether in the schools or in hospitals, are advised to take Home Economics 13 and 11.

Students who hold *scholarships in home economics* must make this subject their major along one of the lines indicated above and take each semester at least four hours in home economics or in subjects required for admission to courses in home economics.

Students whose major is in home economics in the College of Liberal Arts and Sciences must also satisfy the other requirements for the degree of Bachelor of Arts in so far as these are not covered in the curriculums given below.

<sup>1</sup>Semester hours. For definition, see page 237.

## Suggested Curriculum for Teachers of Home Economics

## FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
Chem. 1—Inorganic Chemistry or.....	5	Chem. 2a—Inorg. Chem. and Qual. Anal.....	5
Chem. 1a <sup>2</sup> —Inorganic Chemistry.....	3	Foreign language.....	4
Foreign language.....	4	Home Econ. 1 <sup>3</sup> —Principles of the Selection	
Home Econ. 2—Home Arch. and Sanitation..	2	and Preparation of Food.....	3
Rhet. 1 <sup>4</sup> —Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3
Phys. Ed. 7a—Physical Training.....	1	Phys. Ed. 7b—Physical Training.....	1
Phys. Ed. 9—Hygiene.....	1		
Total.....	14 or 16	Total.....	16

## SECOND YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Hours		Hours
A. and D. 1—Free Hand Drawing.....	3	A. and D. 12—Applied Design.....	2
Chem. 13a—Agricultural Analysis.....	5	Bot. 1—General Botany or Zool. 1—General	
Eng. 1—Survey of English Literature.....	4	Zoology.....	5
Home Econ. 6—Economic Uses of Food.....	4	Chem. 9—Organic Chemistry.....	3
Lib. Sci. 12—General Reference.....	2	Chem. 9c—Organic Synthesis.....	2
		Eng. 2—Survey of English Literature.....	4
		Home Econ. 7—Textiles.....	2
Total.....	18	Total.....	18

## THIRD YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Hours		Hours
Hist. 1a—Continental European Hist. or		Bact. 5—Introductory Bacteriology.....	5
Hist. 3a—History of the U. S.....	4 or 3	Hist. 1b—Continental European Hist. or	
Home Econ. 19—Dress Design.....	3	Hist. 3b—History of the U. S.....	4 or 3
Physiol. 4—General Physiology.....	5	Home Econ. 3—Home Decoration.....	3
		Home Econ. 5—Dietetics.....	3
		Home Econ. 12—Clothing.....	3
Total.....	12 or 11	Total.....	18 or 17
<i>Electives</i>		<i>Electives</i>	
Philos. 1—Logic.....	3	Econ. 2—Principles of Economics.....	3
Psychol. 1—Introduction to Psychology.....	3	Home Econ. 14—Problems in the Preparation	
		and Service of Food.....	3
		Philos. 2—Introduction to Philosophy.....	3
		Psychol. 2—General Psychology.....	3

## FOURTH YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Hours		Hours
Educ. 1—Introduction to Education.....	4	Educ. 10—Technic of Teaching.....	3
Home Econ. 4—Food and Nutrition.....	5	Home Econ. 11—Teachers' Course.....	3
Home Econ. 13—Hist. of Home Economics..	2		
Total.....	11	Total.....	6
<i>Electives</i>		<i>Electives</i>	
Educ. 16—Social Education.....	3	English, advanced	
English, advanced		Home Econ. 10—Home Management.....	2
Home Econ. 18—Lunch Room Management..	5	Home Econ. 17—Problems in Textiles.....	3
Public Speaking 1—Oral Expression.....	2	Public Speaking 2—Oral Expression.....	2
Sociology 1—Principles of Sociology.....	3	Sociology 7—Social Problems of the Rural	
		Community.....	2

## Suggested Curriculum in Household Administration

## FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
Chem. 1—Inorganic Chemistry or Chem.		Chem. 2a—Inorg. Chem. and Qual. Anal.....	5
1a <sup>2</sup> —Inorganic Chemistry.....	5 or 3	Foreign language.....	4
Foreign language.....	4	Home Econ. 1 <sup>3</sup> —Principles of the Selection	
Home Econ. 2—Home Arch. and Sanitation..	2	and Preparation of Food.....	3
Rhet. 1 <sup>4</sup> —Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3
Phys. Ed. 7a—Physical Education.....	1	Phys. Ed. 7b—Physical Education.....	1
Phys. Ed. 9—Hygiene.....	1		
Total.....	16 or 14	Total.....	16

<sup>1</sup>Semester hours. For definition see page 237.<sup>2</sup>If Chemistry 1a is taken, a 2-hour elective must be added, with the approval of the adviser.<sup>3</sup>Attention is called to the fact that high-school physics is a prerequisite for Home Economics 1.<sup>4</sup>Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2, may be excused from Rhetoric 1. See page 72.

## SECOND YEAR

A. and D. 1—Free Hand Drawing.....	3
Foreign language or English 1.....	4
Home Econ. 6—Economic Uses of Food.....	4
Home Econ. 7—Textiles.....	2
<b>Total.....</b>	<b>13</b>

*Electives*

A. and D. 19—History of the Fine Arts.....	2
Chem. 13a—Agricultural Analysis.....	5
Econ. 26—Economic Resources.....	3
Hist. 1a—Continental European History.....	4
Hist. 3a—History of the U. S.....	3
Lib. Sci. 12—General Reference.....	2

A. and D. 12—Applied Design.....	2
Bot. 1—General Botany or Zool. 1—General Zoology.....	5
Foreign language or English 2.....	4
<b>Total.....</b>	<b>11</b>

*Electives*

A. and D. 20—History of the Fine Arts.....	2
Chem. 9—Organic Chemistry.....	3
Chem. 9c—Organic Synthesis.....	2
Econ. 22—Econ. Hist. of U. S.....	3
Hist. 1b—Continental European History.....	4
Hist. 3b—History of the U. S.....	3

## THIRD YEAR

Econ. 1—Principles of Economics.....	5
Home Econ. 19—Dress Design.....	3
Physiol. 4—General Physiology.....	5
<b>Total.....</b>	<b>13</b>

*Electives*

English Home Econ. 14—Problems in the Preparation and Service of Food.....	3
Psychol. 1—Introduction to Psychology.....	3
Sociology 1—Principles of Sociology.....	3

Home Econ. 3—Home Decoration.....	3
Home Econ. 5—Dietetics.....	3
Home Econ. 12—Clothing.....	3
<b>Total.....</b>	<b>9</b>

*Electives*

Home Econ. 10—Home Management.....	2
Philos. 2—Introduction to Philosophy.....	3
Pol. Sci. 3—State and Local Government.....	3
Pol. Sci. 16—Government of Illinois.....	2
Psychol. 2—General Psychology.....	3
Educ. 1—Introd. to Education.....	4

## FOURTH YEAR

Educ. 1—Introduction to Education.....	4
English, advanced Home Econ. 4—Food and Nutrition.....	5
Home Econ. 13—History of Home Economics.....	2
Home Econ. 15—Economics of the Family Group.....	3
Home Econ. 18—Lunch Room Management.....	5

*Electives*

Educ. 10—Technic of Teaching.....	3
English, advanced Home Econ. 9—Problems in Extension.....	3
Home Econ. 11—Teacher's Course.....	3
Home Econ. 17—Problems in the study of Textiles.....	3
Home Econ. 28—Organization of the House- hold.....	3

*Electives*

## PRE-MEDICAL CURRICULUM

The One-Year Medical College at Urbana, providing opportunity for registration at Urbana for the freshman year of a four-year medical course, has been discontinued for the year 1918-19, together with the Six-Year Medical Curriculum (three years at Urbana and three at the College of Medicine in Chicago) and the Seven-Year Medical Curriculum (four years at Urbana and three in Chicago). Students who have completed their two years of pre-medical studies and desire to begin a medical course should enroll as freshmen in the College of Medicine in Chicago.

The requirement for admission to the College of Medicine is as follows:

- (a) Fifteen units of high-school work, including English, 3 units; algebra, 1; plane geometry, 1; foreign language (Latin or Greek or French or German), 2; American history and civics, 1; electives, 7.
- (b) Sixty semester hours of collegiate credit, including physics, 8 hours; chemistry, 8; biology, 8; French or German, 6; electives, 30.

Conditions are permitted, for the year 1918-19, in collegiate French or German, 6 hours, or electives, 8 hours. No conditions are permitted in high-school subjects or in the collegiate physics, chemistry, or biology.

The following suggested two-year pre-medical curriculum covers the entrance requirement of the College of Medicine as outlined in the preceding paragraph, and includes additional courses in science which it is considered desirable for prospective medical students to take. This course of study is recommended to students who enter the College of Liberal Arts and Sciences to prepare themselves for the study of medicine.

<sup>1</sup> Choice depends on whether the student wishes to emphasize the sciences or economics as a minor.

## Suggested Pre-Medical Curriculum

FIRST SEMESTER		FIRST YEAR		SECOND SEMESTER	
	Hours <sup>1</sup>				Hours <sup>1</sup>
Chem. 1—General Chemistry.....	5	Chem. 2a—Inorganic Chemistry.....	5		
Math. 4—Trigonometry.....	2	Zool. 2—Vertebrate Zoology.....	5		
Zool. 1—General Zoology.....	5	Rhet. 2—Rhetoric and Themes.....	3		
Rhet. 1 <sup>2</sup> —Rhetoric and Themes.....	3	Phys. Ed. 2—Gymnasium.....	1		
Phys. Ed. 1 and 1a—Gymnasium and Hygiene	1	Mil. 2a—Military Drill.....	$\frac{1}{2}$		
Mil. 1a—Military Drill.....	$\frac{1}{2}$	Mil. 2b—Military Theory.....	$\frac{1}{2}$		
Mil. 1b—Military Theory.....	$\frac{1}{2}$				
Total.....	17	Total.....	15		
		SECOND YEAR			
Chem. 5a—Quantitative Analysis.....	5	Chem. 9, 9c—Organic Chemistry.....	5		
German 1 or 4.....	4	German 3 or 5 or 6.....	4		
Physics 7a—General Physics.....	$2\frac{1}{2}$	Physics 7b—General Physics.....	$2\frac{1}{2}$		
Physics 8a—Laboratory.....	$2\frac{1}{2}$	Physics 8b—Laboratory.....	$2\frac{1}{2}$		
Zool. 3—Microscopical Technics.....	3	Zool. 6—Vertebrate Organogeny.....	3		
Mil. 3a—Military Drill.....	$\frac{1}{2}$	Mil. 4a—Military Drill.....	$\frac{1}{2}$		
Mil. 3b—Military Theory.....	$\frac{1}{2}$	Mil. 4b—Military Theory.....	$\frac{1}{2}$		
Total.....	18	Total.....	18		

## CURRICULUMS IN CHEMISTRY

Students who follow the General Curriculum in the College of Liberal Arts and Sciences with chemistry as a major subject are eligible for the degree of Bachelor of Arts.

For the more specialized training of the chemist the following curriculums, largely prescribed, have been arranged. Each requires a maximum total of 136 hours, and leads to the degree of Bachelor of Science.

Preliminary preparation in German or French equivalent to two years of high-school work or one year of university work is prescribed. The total language requirement for graduation, including courses offered for entrance, must be equivalent to two years of University German or French.

## Curriculum in Chemistry

In the following schedule of courses, after the second year there are offered certain *prescribed subjects* required of all students and in addition five *group options*, the last four of which are outlined for the purpose of affording systematic training along certain important lines of applied chemistry. The first option, A, is intended for those students who wish to place chief emphasis on the fundamental branches of chemistry as a science and for those students who desire a combination of subjects not outlined in the other four groups. Students in option A must submit to their adviser at the beginning of the junior year an outline of their proposed program for the junior and senior years. Approval of such an outline must be secured from the adviser before registering. At least 12 hours of the electives under option A must be in chemistry and it is recommended that they be selected as far as possible from more advanced courses in inorganic, analytical, organic, and physical chemistry. In all groups, except B, 10 hours of the electives must be taken outside of the department and must include a course in the theory of economics.

The groups provided for, with the letter used to designate each group, are as follows:

- A. General
- B. Electrochemical
- C. Industrial
- D. Food and Sanitation
- E. Physiological

<sup>1</sup>Semester hours. For definition see page 237.

<sup>2</sup>Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2, may be excused from Rhetoric 1. See page 72.

FIRST SEMESTER		FIRST YEAR		SECOND SEMESTER	
	Hours <sup>1</sup>				Hours <sup>1</sup>
Chem. 1 <sup>2</sup> or 1a—Inorganic Chemistry.....	5 <sup>2</sup> or 3	Chem. 3a—Inorganic Chemistry and Qualitative Analysis.....	6		
German or French.....	4	German or French.....	4		
Math. 2—College Algebra.....	3	Math. 6—Analytical Geometry.....	5		
Math. 4—Plane Trigonometry.....	2	Phys. Ed. 2—Gymnasium.....	1		
Rhet. 1—Rhetoric and Themes.....	3	Mil. 2b—Drill Regulations.....	$\frac{1}{2}$		
Phys. Ed. 1 and 1a—Gymnasium and Hygiene	1	Mil. 2a—Military Drill.....	$\frac{1}{2}$		
Mil. 1a—Military Drill.....	$\frac{1}{2}$				
Mil. 1b—Military Theory.....	$\frac{1}{2}$				
Total.....	19 <sup>2</sup> or 17	Total.....	17		

SECOND YEAR			
Chem. 5a—Quantitative Analysis.....	5	Chem. 5b—Advanced Analytical Chemistry..	5
French or German.....	4	French or German.....	4
Phys. 1a—General Physics.....	3	History 2 or 3 or English 20.....	3
Phys. 3a—Physical Measurements.....	2	Phys. 1b—General Physics.....	2
Rhet. 2—Rhetoric and Themes.....	3	Phys. 3b—Physical Measurements.....	2
Mil. 3a—Military Drill.....	$\frac{1}{2}$	Mil. 4a—Military Drill.....	$\frac{1}{2}$
Mil. 3b—Military Theory.....	$\frac{1}{2}$	Mil. 4b—Military Theory.....	$\frac{1}{2}$
Total.....	18	Total.....	17

THIRD YEAR			
<i>Prescribed for all Groups</i>		<i>Prescribed for all Groups</i>	
Chem. 14a—Organic Chemistry.....	4	Chem. 14b—Organic Chemistry.....	2
Chem. 14c—Organic Synthesis and Ultimate Analysis.....	2	Chem. 14d—Organic Synthesis and Qualitative Analysis.....	2
Chem. 92a—Journal Meeting.....	1	Chem. 31—Principles of Physical Chemistry..	3
Math. 8 <sup>2</sup> —Differential and Integral Calculus.	5	Chem. 33—Physical Chemistry Laboratory..	2
		Chem. 92b—Journal Meeting.....	1
		Chem. 90—Inspection Trip.....	0
Total.....	12	Total.....	10

Group Options		Group Options	
A.—General Electives.....	5	A.—General Electives.....	7
B <sup>3</sup> .—Electrochemical Economics 1; or Economics 2 with 3 additional hours other than chemistry...	5	B.—Electrochemical E. E. 8—Electric Currents and Apparatus	3
C.—Industrial Chem. 65—Technical Gas and Fuel Analysis.....	2	E. E. 68—Electrical Engineering Laboratory.....	1
E. E. 8—Electric Currents and Apparatus	3	Math. 9.....	3
E. E. 68—Electrical Engineering Laboratory.....	1	C.—Industrial Elective.....	6
D. and E.—Food and Physiological Bact. 5—Introductory Bacteriology.....	5	D. and E.—Food and Physiological Elective..	7

FOURTH YEAR			
<i>Prescribed for all Groups</i>		<i>Prescribed for all Groups</i>	
Chem. 11a—Research.....	3	Chem. 6—Chemical Technology.....	3
Chem. 93a—Journal Meeting.....	1	Chem. 11b—Research.....	7
Chem. 95—History of Chemistry.....	2	Chem. 93b—Journal Meeting.....	1
		Chem. 91—Inspection Trip.....	0
Total.....	6	Total.....	11

Group Options		Group Options	
A.—General Electives.....	11	A.—General Electives.....	5
B.—Electrochemical Chem. 35—Electrochemistry.....	3	B.—Electrochemical Electives.....	2
Chem. 37—Experimental Problems in Physical and Electrochemistry.....	4	Philos. 1—Logic.....	3
Electives.....	2	C.—Industrial Chem. 61—Industrial Laboratory.....	3
Phys. 4a—Electrical and Magnetic Measurements.....	2	Electives.....	2
C.—Industrial Chem. 7—Metallurgy.....	3	D. and E.—Food and Physiological Electives.	5
Chem. 35—Electrochemistry.....	3		
Chem. 69—Met. Lab. and Assaying.....	2		
Electives.....	3		
D.—Food and Sanitation Chem. 5c—Food Analysis.....	5		
Chem. 21—Qual. Organic Analysis.....	2		
Electives.....	4		
E.—Physiological Chem. 15a.....	5		
Electives.....	6		

<sup>1</sup> Semester hours. For definition see page 237.<sup>2</sup> Students who must take Chemistry 1 in the first year may reduce the electives of the last two years by 2 hours.<sup>3</sup> Students electing Option B must register in Mathematics 7.

## Curriculum in Chemical Engineering

The work of the technical chemist or superintendent is frequently so closely associated with mechanical and other engineering lines as to make a knowledge of these subjects essential. To meet these conditions, the following four-year curriculum in chemistry and related engineering subjects has been arranged. The degree given is that of Bachelor of Science in chemical engineering.

It is advised that students intending to take this curriculum be prepared to offer two units of Manual Training, including mechanical drawing, for entrance, or arrange to take General Engineering Drawing 1 or S1 in the University.

## FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
Chem. 1a or 1—Inorganic .....	3 or 5	Chem. 3a—Inorganic Chemistry and Qualitative Analysis.....	6
German 4—Prose Reading.....	4	German 6—Scientific German.....	4
Math. 2—College Algebra.....	3	Math. 6—Analytic Geometry.....	5
Math. 4—Plane Trigonometry.....	2	Phys. Ed. 2—Gymnasium.....	1
Phys. Ed. 1—Gymnasium.....	1	Mil. 2a—Military Drill.....	$\frac{1}{2}$
Mil. 1a—Military Drill.....	$\frac{1}{2}$	Mil. 2b—Military Theory.....	$\frac{1}{2}$
Mil. 1b—Military Theory.....	$\frac{1}{2}$		
Total.....	14 or 16	Total.....	17

## SECOND YEAR

Chem. 5a—Quantitative Analysis.....	5	Chem. 5b—Advanced Analytical Chemistry..	5
Math. 8—Differential and Integral Calculus..	5	Phys. 1b—General Physics.....	2
Phys. 1a—General Physics.....	3	Phys. 2b—Physical Measurements.....	2
Phys. 3a—Physical Measurements.....	2	Rhet. 2—Rhetoric and Themes.....	3
Rhet. 1 <sup>2</sup> —Rhetoric and Themes.....	3	T. and A. M. 20—Analytical Mechanics.....	3
Mil. 3a—Military Drill.....	$\frac{1}{2}$	Mil. 4a—Military Drill.....	$\frac{1}{2}$
Mil. 3b—Military Theory.....	$\frac{1}{2}$	Mil. 4b—Military Theory.....	$\frac{1}{2}$
Total.....	19	Total.....	16

## THIRD YEAR

Chem. 14a—Organic Chemistry.....	4	Chem. 14b—Organic Chemistry.....	2
Chem. 14c—Organic Synthesis and Ultimate Analysis.....	2	Chem. 14d—Organic Synthesis and Qualitative Organic Analysis.....	2
Chem. 92a—Journal Meeting.....	1	Chem. 31—Physical Chemistry.....	4
E. E. 8—Electrical Currents and Apparatus..	3	Chem. 33—Physical Chemistry Laboratory..	2
E. E. 68—Electrical Engineering Laboratory..	1	Chem. 92b—Journal Meeting.....	1
T. and A. M. 21—Analytical Mechanics.....	2	Inspection Trip.....	0
T. and A. M. 25—Resistance of Materials....	4	M. E. 77—Foundry Work.....	3
Electives, outside Chemistry <sup>3</sup> .....	1	Electives outside of the department <sup>3</sup> .....	3
Total.....	18	Total.....	17

## FOURTH YEAR

Chem. 7—General Metallurgy and Iron and Steel.....	3	Chem. 6—Chemical Technology.....	3
Chem. 11a—Research.....	3	Chem. 11b—Research.....	6
Chem. 35—Electrochemistry.....	3	Chem. 61—Industrial Chemical Laboratory..	3
Chem. 65—Technical Gas and Fuel Analysis..	2	Chem. 93b—Journal Meeting.....	1
Chem. 69—Assaying.....	2	M. E. 64—Mechanical Engineering Laboratory.....	3
Chem. 93a—Journal Meeting.....	1	Inspection trip.....	0
M. E. 1—Steam and Air Machinery.....	3	Electives <sup>3</sup> .....	
Electives <sup>3</sup> .....			
Total.....	17	Total.....	16

<sup>1</sup>Semester hours. For definition, see page 237.

<sup>2</sup>Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2, may be excused from Rhetoric 1. See page 72.

<sup>3</sup>During the third and fourth years students must elect a total of four hours in subjects other than Chemistry. If Military is elected no other electives may be taken.

**RECOGNITION OF THE UNIVERSITY OF ILLINOIS IN GREAT BRITAIN  
AND IRELAND**

**The University of Oxford**

The University of Oxford on October 24, 1916, passed the following decrees:

1. That any member of the University of Illinois who shall have pursued at that University a course of study in the College of Liberal Arts and Sciences extending over two years at the least, and shall have received an average grade of 80 per cent, or higher, in at least 65 semester hours, shall be eligible for admission to the status and privileges of a Junior Foreign Student.

2. That any member of the University of Illinois who shall have pursued at that University a course of study in the College of Liberal Arts and Sciences, extending over three years at the least, and shall have received an average grade for three consecutive years of 86 per cent, or higher, shall be eligible for admission to the status and privileges of a Senior Foreign Student.

3. That any member of the University of Illinois who shall have passed Greek 3 and Greek 4 with a grade of not less than 80 per cent, shall be deemed to have shown a sufficient knowledge of Greek as required by the provisions of *Statt. Tit. II, Sect. IX, "On Students from Foreign Universities."*

**The University of Edinburgh**

The University of Illinois has been recognized by the Edinburgh University Court under Section XX of the Arts Ordinance of that University, which reads as follows:

The Senatus may accept, under such conditions as they may from time to time prescribe, attendance at Universities specially recognized by the University Court, and the examinations passed therein, provided always that every student whose attendance or examinations are thus accepted, shall attend qualifying classes for at least two academical years in the University of Edinburgh, and shall pass the examinations of that University in the subjects studied therein.

Information in regard to the regulations under the above Ordinance may be obtained at the Registrar's Office.

**The Queen's University of Belfast**

The Academic Council of the Queen's University of Belfast has voted the following instruction:

The Dean is instructed to grant exemption from a year's attendance to students of the University of Illinois who have pursued at that University a course of study in the College of Liberal Arts and Science extending over two years at the least and shall have received an average grade of 80 per cent or higher in at least 65 semester hours.

**Other British and Irish Universities**

Most of the other universities of Great Britain and Ireland make general provisions for the admission of foreign students to advanced standing or graduate study, under which students from the University of Illinois may, in general, expect to receive recognition, upon individual application, substantially equivalent to that provided for in the regulations of the Universities of Oxford, Edinburgh, and Belfast, as noted above.

# THE COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION

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For a description of the *building* used by this College, see page 50; for *museum and collections* belonging to it, see page 60; for *societies and clubs* auxiliary to its curriculums, see page 96; for *fees*, see page 105.

## ORGANIZATION

The College of Commerce and Business Administration was established by the Board of Trustees in April, 1915, and opened the following September. The new college was given control of all the work formerly conducted by the department of economics, including the courses in business administration. The work of the college is divided into three separate departments as follows: economics, including finance and statistics; business organization and operation, including accountancy and business law; and transportation.

## PURPOSE

The purpose of the College of Commerce and Business Administration is to give its students a knowledge of the principles underlying all lines of business with special training for particular business callings. The College does not attempt to prepare students for clerical and similar occupations as employees, but does endeavor to lay a broad foundation on which successful careers in managerial and administrative positions and as proprietors may be built. To this end courses in economics, accountancy, business organization and operation, banking, commerce, railway administration, and industry are offered in combination with courses in language and literature, the social sciences, law, mathematics, and the natural sciences.

## ADMISSION

See the statement of the entrance requirements of the University, pages 65-81.

## SPECIAL STUDENTS

See the statement of the general regulations of the University in regard to special students, page 72.

## REQUIREMENTS FOR GRADUATION

Students who graduate from the College of Commerce and Business Administration are awarded the degree of Bachelor of Science.

The requirements for graduation are as follows:

1. A candidate must comply with the University requirements as to residence and registration, and secure credit amounting to 130 hours, including the general requirements of *Rhetoric 1-2, 6 hours*; and *Physical Education 1, 1a, and 2, 2 hours*, for men, and *7a-7b and 9, 3 hours*, for women; and *Military Science 1a, 2a, 3a, 4a, and 1b, 2b, 3b, 4b, 4 hours*, for men. Students who elect the Reserve Officers' Training Corps must also take *Military Science 5a, 6a, 7a, 8a, and 5b, 6b, 7b, 8b, 4 hours*.

2. A candidate must secure credit in the subjects listed as *prescribed* in his chosen curriculum.

3. Of the electives allowed, 8 hours must be either in English literature or in foreign language in all curriculums, but prescribed courses in either of these subjects may be counted in meeting this requirement.



4. In the General Business Curriculum, the Curriculums in Banking, Insurance, Accountancy, Railway Administration, Commerce and Law, and the Curriculum for Commercial and Civic Secretaries, 12 hours must be elected from the following group of subjects: History, political science, philosophy, psychology, and sociology, provided that not less than six hours in any one subject may be counted in fulfilling this requirement; but prescribed courses in any of these subjects may be counted.

5. Ten hours must be elected from the following group of subjects: Chemistry, mathematics, and physics, provided that not less than 5 hours in any one subject may be counted in fulfilling this requirement; but prescribed courses in any of these subjects may be counted.

6. Free electives sufficient to make up the 130 hours required for graduation may be selected from any department of the University. Such electives must, however, be chosen with a view to promoting the specific object of the curriculum pursued and must have the approval of the Dean of the College.

### THE CURRICULUMS

The curriculums in commerce and business administration are: General business, commercial and civic secretarial service, banking, insurance, accountancy, general railway administration, railway transportation, commercial teaching, foreign commerce, industrial administration, and commerce and law. The subjects prescribed for graduation in each curriculum are listed in the following outlines. These subjects are in general arranged in sequence and should be taken in the order given. In addition to the prescribed subjects sufficient electives must be taken each semester to make up a minimum of 15 hours, but not to exceed a maximum of 18 hours of work. In choosing electives the attention of students is called to provisions 3, 4, and 5 of the above statement of the requirements for graduation. It is advisable that the electives there mentioned be taken as far as possible in the first two years in order to leave more opportunity for free electives in the last two years.

### General Business Curriculum

FIRST SEMESTER		FIRST YEAR		SECOND SEMESTER	
	Hours <sup>1</sup>				Hours <sup>1</sup>
Acc'y 1a—Principles of Accounting.....	3	Acc'y 1b—Principles of Accounting.....	3		
Econ. 26—Economic Resources.....	3	Econ. 22—Economic History of the United States.....	3		
Rhet. 1 <sup>2</sup> —Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3		
Phys. Ed. 1 and 1a—Gymnasium and Hygiene	1	Phys. Ed. 2—Gymnasium.....	1		
Mil. 1a—Military Drill.....	$\frac{1}{2}$	Mil. 2a—Military Drill.....	$\frac{1}{2}$		
Mil. 1b—Military Theory.....	$\frac{1}{2}$	Mil. 2b—Military Theory.....	$\frac{1}{2}$		
Electives.....	4-7	Electives.....	4-7		
Total.....	15-18	Total.....	15-18		
		SECOND YEAR			
Acc'y 2a—Advanced Accounting and Auditing	3	Acc'y 2b—Advanced Accounting and Auditing	3		
Econ. 1—Principles of Economics.....	5	Econ. 3—Money and Banking.....	3		
Rhet. 10—Business Writing.....	2	Mil. 4a—Military Drill.....	$\frac{1}{2}$		
Mil. 3a—Military Drill.....	$\frac{1}{2}$	Mil. 4b—Military Theory.....	$\frac{1}{2}$		
Mil. 3b—Military Theory.....	$\frac{1}{2}$	Electives.....	8-11		
Electives.....	4-7	Total.....	15-18		
Total.....	15-18	Total.....	15-18		

<sup>1</sup>Semester hours. For definition, see page 237.

<sup>2</sup>Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2, may be excused from Rhetoric 1. See page 72.

## THIRD YEAR

Bus. Org. and Op. 1—Business Organization and Operation.....	3
Bus. Law 1a—Commercial Law.....	3
Econ. 28—Domestic Commerce.....	3
Trans. 1—Transportation System of the United States.....	3
Electives.....	3-6

Total..... 15-18

Bus. Law 1b—Commercial Law.....	3
Bus. Org. and Op. 2—Organization and Control of Mercantile Distribution.....	2
Econ. 10—Corporation Management and Finance.....	3
Rhet. 22—Summarizing and Briefing.....	2
Trans. 12—Freight Shipment.....	2
Electives.....	3-6

Total..... 15-18

## FOURTH YEAR

Bus. Org. and Op. 7—Salesmanship.....	2
Econ. 5—Public Finance.....	3
Electives.....	10-13

Total..... 15-18

Bus. Org. and Op. 8—Advertising.....	2
Econ. 31—Organization of Foreign Commerce.....	3
Electives.....	10-13

Total..... 15-18

## Curriculum for Commercial and Civic Secretaries

The first and second years of this curriculum are the same as in the General Business Curriculum except that Political Science 1—American Government (3)—is prescribed in the first semester of the second year, while Rhetoric 10—Business Writing (2)—is transferred to the second semester.

## THIRD YEAR

## FIRST SEMESTER

	Hours <sup>1</sup>
Bus. Org. and Op. 1—Business Organization and Operation.....	3
Econ. 28—Domestic Commerce.....	3
Pol. Sci. 4—Municipal Government.....	3
Sociol. 8—Charities.....	3
Electives.....	3-6

Total..... 15-18

## SECOND SEMESTER

	Hours <sup>1</sup>
Bus. Org. and Op. 2—Organization and Control of Mercantile Distribution.....	2
Econ. 10—Corporation Management and Finance.....	3
Rhet. 22—Summarizing and Briefing.....	2
Trans. 12—Freight Shipment.....	2
Electives.....	6-9

Total..... 15-18

## FOURTH YEAR

Bus. Law 1a—Commercial Law.....	3
Econ. 5—Public Finance.....	3
Electives.....	9-12

Total..... 15-18

Bus. Law 1b—Commercial Law.....	3
Bus. Org. and Op. 8—Advertising.....	2
Bus. Org. and Op. 9—Commercial and Civic Organizations.....	1
Hort. 10b—Town Improvement.....	2
Electives.....	7-10

Total..... 15-18

## Curriculum in Banking

The first and second years are the same as in the General Business Curriculum except that Mathematics 2—College Algebra (3)—is prescribed in the first semester of the first year.

## THIRD YEAR

## FIRST SEMESTER

	Hours <sup>1</sup>
Bus. Org. and Op. 1—Business Organization and Operation.....	3
Bus. Law 1a—Commercial Law.....	3
Econ. 5—Public Finance.....	3
Econ. 28—Domestic Commerce.....	3
Electives.....	3-6

Total..... 15-18

## SECOND SEMESTER

	Hours <sup>1</sup>
Bus. Org. and Op. 2—Organization and Control of Mercantile Distribution.....	2
Bus. Law 1b—Commercial Law.....	3
Econ. 10—Corporation Management and Finance.....	3
Math. 23—Mathematics of Investment.....	3
Electives.....	4-7

Total..... 15-18

## FOURTH YEAR

Econ. 9—Practical Banking.....	2
Econ. 4—Financial History of the United States.....	3
Electives.....	10-13

Total..... 15-18

Econ. 8—The Money Market.....	2
Econ. 31—Organization of Foreign Commerce.....	3
Electives.....	10-13

Total..... 15-18

<sup>1</sup> Semester hours. For definition, see page 237.

## Curriculum in Insurance

## FIRST YEAR

## FIRST SEMESTER

	Hours <sup>1</sup>
Acc'y 1a—Principles of Accounting.....	3
Econ. 26—Economic Resources.....	3
Math. 2—College Algebra.....	3
Math. 4—Trigonometry.....	2
Rhet. 1—Rhetoric and Themes.....	3
Phys. Ed. 1 and 1a—Gymnasium and Hygiene	1
Mil. 1a—Military Drill.....	$\frac{1}{2}$
Mil. 1b—Military Theory.....	$\frac{1}{2}$
Electives.....	0-2

Total..... 16-18

## SECOND SEMESTER

	Hours <sup>1</sup>
Acc'y 1b—Principles of Accounting.....	3
Econ. 22—Economic History of the United States.....	3
Math. 6—Analytic Geometry.....	5
Rhet. 2—Rhetoric and Themes.....	3
Phys. Ed. 2—Gymnasium.....	1
Mil. 2a—Military Drill.....	$\frac{1}{2}$
Mil. 2b—Military Theory.....	$\frac{1}{2}$
Electives.....	0-2

Total..... 16-18

## SECOND YEAR

Acc'y 2a—Advanced Accounting and Auditing	3
Econ. 1—Principles of Economics.....	5
Math. 8—Differential and Integral Calculus..	5
Mil. 3a—Military Drill.....	$\frac{1}{2}$
Mil. 3b—Military Theory.....	$\frac{1}{2}$
Electives.....	1-4

Total..... 15-18

Acc'y 2b—Advanced Accounting and Auditing	3
Econ. 3—Money and Banking.....	3
Rhet. 10—Business Writing.....	2
Mil. 4a—Military Drill.....	$\frac{1}{2}$
Mil. 4b—Military Theory.....	$\frac{1}{2}$
Electives.....	6-9

Total..... 15-18

## THIRD YEAR

Bus. Law 1a—Commercial Law.....	3
Bus. Org. and Op. 1—Business Organization and Operation.....	3
Econ. 5—Public Finance.....	3
Econ. 28—Domestic Commerce.....	3
Electives.....	3-6

Total..... 15-18

Bus. Law 1b—Commercial Law.....	3
Bus. Org. and Op. 2—Organization and Control of Mercantile Distribution.....	2
Econ. 10—Corporation Management and Finance.....	3
Math. 23—Mathematics of Investment.....	3
Electives.....	4-7

Total..... 15-18

## FOURTH YEAR

Bus. Org. and Op. 7—Salesmanship.....	2
Econ. 33—Economics of Insurance.....	2
Econ. 9—Practical Banking.....	2
Math. 31—Actuarial Theory.....	3
Electives.....	6-9

Total..... 15-18

Bus. Org. and Op. 8—Advertising.....	2
Econ. 34—Property Insurance.....	2
Math. 31—Actuarial Theory.....	3
Electives.....	8-11

Total..... 15-18

## Curriculum in Accountancy

The first and second years are the same as in the General Business Curriculum except that Mathematics 2—College Algebra (3)—is prescribed in the first semester of the first year.

## THIRD YEAR

## FIRST SEMESTER

	Hours <sup>1</sup>
Acc'y 3a—Accounting Problems and Auditing	3
Bus. Law 1a—Commercial Law.....	3
Bus. Org. and Op. 1—Business Organization and Operation.....	3
Econ. 28—Domestic Commerce.....	3
Electives.....	3-6

Total..... 15-18

## SECOND SEMESTER

	Hours <sup>1</sup>
Acc'y 3b—Accounting Problems and Auditing	3
Bus. Org. and Op. 2—Organization and Control of Mercantile Distribution.....	2
Bus. Law 1b—Commercial Law.....	3
Econ. 10—Corporation Management and Finance.....	3
Math. 23—Mathematics of Investment.....	3
Electives.....	1-4

Total..... 15-18

## FOURTH YEAR

Acc'y 5a—C. P. A. Problems.....	2
Econ. 9—Practical Banking.....	2
Econ. 11—Industrial Consolidations.....	3
Electives.....	6-9

Total..... 15-18

Acc'y 5b—C. P. A. Problems.....	2
Electives.....	13-16

Total..... 15-18

<sup>1</sup>Semester hours. For definition, see page 237.

<sup>2</sup>Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2, may be excused from Rhetoric 1. See page 72.

**Curriculum in Railway Administration**

The first year of this curriculum is the same as the first year of the Curriculum in Insurance.

**SECOND YEAR**

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
Acc'y 2a—Advanced Accounting and Auditing	3	Acc'y 2b—Advanced Accounting and Auditing	3
Econ. 1—Principles of Economics	5	Econ. 3—Money and Banking	3
Rhet. 10—Business Writing	2	Trans. 12—Freight Shipment	2
Trans. 7—Railway Organization	2	Mil. 4a—Military Drill	$\frac{1}{2}$
Mil. 3a—Military Drill	$\frac{1}{2}$	Mil. 4b—Military Theory	$\frac{1}{2}$
Mil. 3b—Military Theory	$\frac{1}{2}$	Electives	6-9
Electives	2-5		
Total	15-18	Total	15-18

**THIRD YEAR**

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
Bus. Org. and Op. 1—Business Organization and Operation	3	Bus. Law 1b—Commercial Law	3
Bus. Law 1a—Commercial Law	3	Trans. 2—Transportation Policy in Europe and the United States	3
Trans. 1—Transportation System of the United States	3	Trans. 22—Railway Train Service or	
Trans. 13—Railway Traffic Administration or		Trans. 26—Economics of Railway Location and Maintenance	3
Trans. 17—Railway Terminal Management	3	Electives	6-9
Electives	3-6		
Total	15-18	Total	15-18

**FOURTH YEAR**

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
Econ. 12a—Labor Problems	3	Econ. 10—Corporation Management and Finance	3
Econ. 28—Domestic Commerce	3	Econ. 12b—Labor Problems	3
Trans. 17—Railway Terminal Management or		Trans. 26—Economics of Railway Location and Maintenance or	
Trans. 13—Railway Traffic Administration	3	Trans. 22—Railway Train Service	3
Electives	6-9	Electives	6-9
Total	15-18	Total	15-18

**Curriculum in Railway Transportation****FIRST YEAR**

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
Acc'y 1a—Principles of Accounting	3	Acc'y 1b—Principles of Accounting	3
G. E. D. 1—Elements of Drafting	4	G. E. D. 2—Descriptive Geometry	4
Math. 2—Advanced Algebra	3	Rhet. 2—Rhetoric and Themes	3
Math. 4—Trigonometry	2	Math. 6—Analytic Geometry	5
Rhet. 12—Rhetoric and Themes	3	Phys. Ed. 2—Gymnasium	1
Phys. Ed. 1 and 1a—Gymnasium and Hygiene	1	Mil. 2a—Military Drill	$\frac{1}{2}$
Mil. 1a—Military Drill	$\frac{1}{2}$	Mil. 2b—Military Theory	$\frac{1}{2}$
Mil. 1b—Military Theory	$\frac{1}{2}$	Electives	0-1
Electives	0-1		
Total	17-18	Total	18

**SECOND YEAR**

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
Econ. 1—Principles of Economics	5	Econ. 3—Money and Banking	3
Math. 8—Differential and Integral Calculus	5	Physics 1b—General Physics	2
Physics 1a—General Physics	3	Physics 3b—Physical Measurements	2
Physics 3a—Physical Measurements	2	Rhet. 10—Business Writing	2
Trans. 7—Railway Organization	2	Trans. 12—Freight Shipment	2
Mil. 3a—Military Drill	$\frac{1}{2}$	T. and A. M. 20—Analytical Mechanics	3
Mil. 3b—Military Theory	$\frac{1}{2}$	Mil. 4a—Military Drill	$\frac{1}{2}$
		Mil. 4b—Military Theory	$\frac{1}{2}$
		Electives	0-3
Total	18	Total	15-18

<sup>1</sup>Semester hours. For definition, see page 237.

<sup>2</sup>Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2, may be excused from Rhetoric 1. See page 72.

## THIRD YEAR

Bus. Law 1a—Commercial Law.....	3
Bus. Org. and Op. 1—Business Organization and Operation.....	3
Trans. 1—Transportation System of the United States.....	3
Trans. 13—Railway Traffic Administration or Trans. 17—Railway Terminal Management..	3
Electives.....	3-6

Total..... 15-18

Bus. Law 1b—Commercial Law.....	3
C. E. 76—Surveying.....	2
M. E. 2—Steam Engineering.....	3
Trans. 2—Transportation Policy in Europe and the United States.....	3
Trans. 22—Railway Train Service or Trans. 26—Economics of Railway Location and Maintenance.....	3
Electives.....	1-4

Total..... 15-18

## FOURTH YEAR

Econ. 12a—Labor Problems.....	3
E. E. 11—Direct Current Apparatus.....	3
E. E. 61—Direct Current Laboratory.....	1
M. E. 61—Power Measurement.....	2
Trans. 17—Railway Terminal Management or Trans. 13—Railway Traffic Administration..	3
Electives.....	3-6

Total..... 15-18

E. E. 12—Alternating Current Apparatus...	3
E. E. 62—Alternating Current Laboratory...	1
Econ. 10—Corporation Management and Finance or	
Econ. 12b—Labor Problems.....	3
Trans. 26—Economics of Railway Location and Maintenance or	
Trans. 22—Railway Train Service.....	3
Electives.....	5-8

Total..... 15-18

## Curriculum for Commercial Teachers

The first and second years are the same as in the General Business Curriculum except that foreign language is prescribed in the first year, and Psychology 1—Introduction to Psychology (3), and Psychology 2—General Psychology (3)— in the second year.

## THIRD YEAR

## FIRST SEMESTER

	Hours <sup>1</sup>
Bus. Law 1a—Commercial Law.....	3
Bus. Org. and Op. 1—Business Organization and Operation.....	3
Educ. 1—Introduction to Education.....	4
Pol. Sci. 1—American Government.....	3
Trans. 1—Transportation System of the United States.....	3
Electives.....	0-2
Total.....	16-18

## SECOND SEMESTER

	Hours <sup>1</sup>
Bus. Law 1b—Commercial Law.....	3
Econ. 10—Corporation Management and Finance.....	3
Educ. 2—History of Education.....	5
Pol. Sci. 3—State and Local Government...	3
Trans. 12—Freight Shipment.....	2
Electives.....	2-5
Total.....	15-18

## FOURTH YEAR

Bus. Org. and Op. 7—Salesmanship.....	2
Econ. 28—Domestic Commerce.....	3
Educ. 15—Social Education.....	3
Electives.....	7-10

Total..... 15-18

Bus. Org. and Op. 8—Advertising.....	2
Econ. 29—Foreign Commerce or	
Econ. 31—Organization of Foreign Commerce	3
Educ. 10—The Technic of Teaching.....	3
Electives.....	7-10

Total..... 15-18

## Curriculum in Foreign Commerce

The first and second years of this curriculum are the same as in the General Business Curriculum except that foreign language is prescribed throughout both years.

## THIRD YEAR

## FIRST SEMESTER

	Hours <sup>1</sup>
Bus. Law 1a—Commercial Law.....	3
Bus. Org. and Op. 1—Business Organization and Operation.....	3
Econ. 28—Domestic Commerce.....	3
Foreign Language.....	2 or 3
Hist. 3a—History of the United States.....	3
Electives.....	0-3

Total..... 15-18

## SECOND SEMESTER

	Hours <sup>1</sup>
Bus. Law 1b—Commercial Law.....	3
Bus. Org. and Op. 2—Organization and Control of Mercantile Distribution.....	2
Econ. 29—Foreign Commerce.....	3
Econ. 10—Corporation Management and Finance.....	3
Foreign Language.....	2 or 3
Hist. 3b—History of the United States.....	3
Electives.....	0-1

Total..... 17-18

<sup>1</sup> Semester hours. For definition, see page 237.

## FOURTH YEAR

Bus. Org. and Op. 7—Salesmanship.....	2	Econ. 8—The Money Market.....	2
Econ. 9—Practical Banking.....	2	Econ. 31—Organization of Foreign Commerce.....	3
Advanced History.....	3	Pol. Sci. 7—American Diplomacy.....	3
Pol. Sci. 6—International Law.....	3	Advanced History.....	3
Electives.....	5-8	Electives.....	4-7
Total.....	15-18	Total.....	15-18

## Curriculum in Industrial Administration

The following curriculum is intended to meet the needs of commerce students planning to enter the administrative or selling departments of industrial plants. To the usual courses in economics, accounting, etc., are added certain groups of technical courses offered by other colleges of the University. For the present, four such groups have been arranged, as follows: Group A, for those interested in the machine industries; Group B, the electrical industries; Group C, the building trades; Group D, the chemical industries. The student may select the one of these groups that will be most advantageous to him in his future work, but he is required to take all the courses listed in the chosen group. A student electing the chemical industries group is required to take Econ. 26—Economic Resources (3) and Econ. 22—Economic History of the United States (3), instead of G. E. D. 1—Elements of Drafting (4) and G. E. D. 2—Descriptive Geometry (4), in the first year; and Chem. 1 or 1a—Inorganic Chemistry (5 or 3), instead of Economics 22—Economic History of the United States (3) and T. and A. M. 20—Analytical Mechanics (3), in the second year.

## FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
Acc'y 1a—Principles of Accounting.....	3	Acc'y 1b—Principles of Accounting.....	3
G. E. D. 1—Elements of Drafting.....	4	G. E. D. 2—Descriptive Geometry.....	4
Math. 2—College Algebra.....	3	Math. 6—Analytic Geometry.....	5
Math. 4—Trigonometry.....	2	Rhet. 2—Rhetoric and Themes.....	3
Rhet. 1 <sup>2</sup> —Rhetoric and Themes.....	3	Phys. Ed. 2—Gymnasium.....	1
Phys. Ed. 1 and 1a—Gymnasium and Hygiene.....	1	Mil. 2a—Military Drill.....	$\frac{1}{2}$
Mil. 1a—Military Drill.....	$\frac{1}{2}$	Mil. 2b—Military Theory.....	$\frac{1}{2}$
Mil. 1b—Military Theory.....	$\frac{1}{2}$	Electives.....	0-2
Electives.....	0-1		
Total.....	17-18	Total.....	17-18

## SECOND YEAR

Econ. 1—Principles of Economics.....	5	Econ. 3—Money and Banking.....	3
Math. 8—Differential and Integral Calculus.....	5	Econ. 23—Statistics.....	3
Phys. 1a—General Physics.....	3	Phys. 1b—General Physics.....	2
Phys. 3a—Physical Measurements.....	2	Phys. 3b—Physical Measurements.....	2
Rhet. 10—Business Writing.....	2	Econ. 22—Economic History of the United States.....	3
Mil. 3a—Military Drill.....	$\frac{1}{2}$	T. and A. M. 20—Analytical Mechanics.....	3
Mil. 3b—Military Theory.....	$\frac{1}{2}$	Mil. 4a—Military Drill.....	$\frac{1}{2}$
		Mil. 4b—Military Theory.....	$\frac{1}{2}$
		Electives.....	0-1
Total.....	18	Total.....	17-18

## THIRD YEAR

Bus. Org. and Op. 1—Business Organization and Operation.....	3	Bus. Org. and Op. 2—Organization and Control of Mercantile Distribution.....	2
Bus. Law 1a—Commercial Law.....	3	Bus. Law 2b—Commercial Law.....	3
Trans. 1—Transportation System of the United States.....	3	Trans. 12—Freight Rates.....	2
Prescribed Technical Courses, Group A, B, C, or D.....	2-6	Prescribed Technical Courses, Group A, B, C, or D.....	3-6
Electives.....	0-7	Electives.....	2-8
Total.....	15-18	Total.....	15-18

<sup>1</sup>Semester hours. For definition, see page 237.

<sup>2</sup>Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2, may be excused from Rhetoric 1. See page 72.

## FOURTH YEAR

Bus. Org. and Op. 7—Salesmanship.....	2	Bus. Org. and Op. 8—Advertising.....	2
Econ. 12a—Labor Problems, or Electives....	3	Econ. 12b—Labor Problems or	
Prescribed Technical Courses, Group A, B, C,		Econ. 10—Corporation Management and	
or D.....	3-9	Finance.....	3
Electives.....	0-7	Prescribed Technical Courses, Group A, B, C,	
		or D.....	2-10
		Electives.....	0-11
Total.....	16-18	Total.....	17-18

## Optional Groups of Technical Courses

## GROUP A:

## THIRD YEAR

FIRST SEMESTER	Hours <sup>1</sup>	SECOND SEMESTER	Hours <sup>1</sup>
T. and A. M. 21—Analytical Mechanics.....	2	M. E. 75—Forge Work.....	1
		M. E. 77—Foundry Work.....	3
		M. E. 2—Steam Engineering.....	3

## FOURTH YEAR

FIRST SEMESTER		SECOND SEMESTER	
M. E. 61—Power Measurement.....	2	E. E. 12—Alternating Current Apparatus....	3
M. E. 81—Machine Work.....	3	E. E. 62—Alternating Current Laboratory..	1
E. E. 11—Direct Current Apparatus.....	3		
E. E. 61—Direct Current Laboratory.....	1		

## GROUP B:

## THIRD YEAR

FIRST SEMESTER		SECOND SEMESTER	
T. and A. M. 21—Analytical Mechanics.....	2	M. E. 2—Steam Engineering.....	3

## FOURTH YEAR

FIRST SEMESTER		SECOND SEMESTER	
M. E. 61—Power Measurement.....	2	E. E. 12—Alternating Current Apparatus....	3
E. E. 11—Direct Current Apparatus.....	3	E. E. 62—Electrical Engineering Laboratory..	1
E. E. 61—Electrical Engineering Laboratory..	1	E. E. 90—Lighting.....	1

## GROUP C:

## THIRD YEAR

FIRST SEMESTER		SECOND SEMESTER	
Arch. Eng. 43—Working Drawings.....	2	T. and A. M. 26—Analytical Mechanics and	
T. and A. M. 25—Resistance of Materials....	4	Hydraulics.....	4
		Arch. Eng. 44—Working Drawings.....	2

## FOURTH YEAR

FIRST SEMESTER		SECOND SEMESTER	
Arch. Eng. 45—Graphic Statics.....	3	C. E. 76—Surveying.....	2

## GROUP D:

## THIRD YEAR

FIRST SEMESTER		SECOND SEMESTER	
Chem. 2a—Inorganic Chemistry and Qualita-		Chem. 5a—Elementary Quantitative Analysis	5
tive Analysis.....	5		

## FOURTH YEAR

FIRST SEMESTER		SECOND SEMESTER	
Chem. 9c—Organic Synthesis.....	2	Chem. 6—Chemical Technology.....	3
Chem. 14a—Organic Chemistry.....	4	Chem. 31—Elementary Physical Chemistry..	4
Chem. 92a—Journal Meeting.....	1	Chem. 33—Elementary Physical Chemistry..	2
		Chem. 92b—Journal Meeting.....	1

## Curriculum in Commerce and Law

(A six-year combined curriculum)

The following curriculum is provided for students who wish to combine commercial and legal studies and secure both the degree of Bachelor of Science and the degree of Bachelor of Laws or of Doctor of Law in six years. Students who elect this curriculum must meet all the requirements for graduation from the College of Commerce and Business Administration, but in exercising their privileges of election are urged to select as

<sup>1</sup>Semester hours. For definition, see page 237.

many hours as possible from the following subjects: Hist. 2a-2b, English History (6); Hist. 3a-3b, United States History (6); Hist. 4a-4b, English Constitutional History (6) Pol. Sci. 1, American Government (3); and Pol. Sci. 3, State and Local Government (3). Students expecting to study law should devote at least 12 hours to work in history and political science. A course in English history is regarded as one of the most essential pre-legal subjects. The law courses in the curriculum may be taken only in the fourth year, and are counted for 30 hours of credit towards the degree, instead of hour for hour, provided the full year's work is completed. In their fourth year students will be regularly registered in the College of Law, but must file copies of their study-lists in the office of the Dean of the College of Commerce and Business Administration at the beginning of each semester.

## FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
Acc'y 1—Principles of Accounting.....	3	Acc'y 1b—Principles of Accounting.....	3
Econ. 26—Economic Resources.....	3	Econ. 22—Economic History of the United States.....	3
Rhet. 1 <sup>2</sup> —Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3
Phys. Ed. 1 and 1a—Gymnasium and Hygiene	1	Phys. Ed. 2—Gymnasium.....	1
Mil. 1a—Military Drill.....	$\frac{1}{2}$	Mil. 2a—Military Drill.....	$\frac{1}{2}$
Mil. 1b—Military Theory.....	$\frac{1}{2}$	Mil. 2b—Military Theory.....	$\frac{1}{2}$
Electives.....	4-7	Electives.....	4-7
Total.....	15-18	Total.....	15-18

## SECOND YEAR

Acc'y 2—Advanced Accounting and Auditing	3	Acc'y 2b—Advanced Accounting and Auditing	3
Econ. 1—Principles of Economics.....	5	Econ. 3—Money and Banking.....	3
Rhet. 10—Business Writing.....	2	Philos. 1—Logic.....	3
Mil. 3a—Military Drill.....	$\frac{1}{2}$	Mil. 4a—Military Drill.....	$\frac{1}{2}$
Mil. 3b—Military Theory.....	$\frac{1}{2}$	Mil. 4b—Military Theory.....	$\frac{1}{2}$
Electives.....	4-7	Electives.....	5-8
Total.....	15-18	Total.....	15-18

## THIRD YEAR

Bus. Org. and Op. 1—Business Organization and Operation.....	3	Bus. Org. and Op. 2—Organization and Control of Mercantile Distribution.....	2
Econ. 5—Public Finance.....	3	Econ. 10—Corporation Finance.....	3
Econ. 28—Domestic Commerce.....	3	Electives.....	10-13
Electives.....	6-9	Total.....	15-18
Total.....	15-18	Total.....	15-18

## FOURTH YEAR

Law 1a—Contracts.....	4	Law 1b—Contracts.....	3
Law 2a—Torts.....	3	Law 2b—Torts.....	3
Law 5—Criminal Law.....	4	Law 3—Real Property.....	3
Law 6—Personal Property.....	2	Law 7—Domestic Relations.....	2
Law 37—Introduction to Study of Law.....	1	Law 11—Agency.....	3
Total.....	14	Total.....	14

<sup>1</sup>Semester hours. For definition, see page 237.

<sup>2</sup>Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2, may be excused from Rhetoric 1. See page 72.



# THE COLLEGE OF ENGINEERING

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For a description of the *buildings* used by this College, see page 50; for *collections* belonging to it, see page 60; for *clubs* and *societies auxiliary to its curriculums*, see page 96; for *fees*, see page 105; for *honors*, see page 84; for *honorary societies*, see page 96.

## GENERAL STATEMENT

The purpose of the College is to train men for the profession of engineering. In arranging its curriculums, cultural subjects are interwoven with the theoretical subjects of the several departments. The instruction of the class-room and the practise afforded by the library, the drafting room, and the laboratory are correlated. Throughout his course the student works on problems and proceeds by methods similar to those which arise in the experience of the practising engineer.

## ADMISSION

See the statement of entrance requirements of the University, pages 65-81.

## SPECIAL STUDENTS

See the statement of the regulations of the University in regard to special students, page 72.

## DESCRIPTION OF DEPARTMENTS

The College of Engineering comprises the following departments:

DEPARTMENT OF ARCHITECTURE, with curriculums in—

Architecture

Architectural Engineering

DEPARTMENT OF CERAMIC ENGINEERING

DEPARTMENT OF CIVIL ENGINEERING

DEPARTMENT OF ELECTRICAL ENGINEERING

DEPARTMENT OF MECHANICAL ENGINEERING

DEPARTMENT OF MINING ENGINEERING

DEPARTMENT OF MUNICIPAL AND SANITARY ENGINEERING

DEPARTMENT OF PHYSICS

DEPARTMENT OF RAILWAY ENGINEERING,<sup>1</sup> with curriculums in—

Railway Civil Engineering

Railway Electrical Engineering

Railway Mechanical Engineering

## ARCHITECTURE

The department of architecture offers two curriculums leading to the first degree, the curriculum in architecture and the curriculum in architectural engineering. The aim of these curriculums is to give preparation for the practise of architecture.

The curriculum in architecture aims primarily to train the student to produce correct, thoughtful, and beautiful works of architecture. The schedule includes liberal and scientific

<sup>1</sup> The School of Railway Engineering and Administration (page 184) offers, in addition to the three curriculums named here, curriculums in railway transportation and railway administration under the direction of the College of Commerce and Business Administration. See pages 130-131 above.

subjects to supply the background for creative work and to give a knowledge of the principles involved in the processes of safe and economical construction; also freehand drawing for the purpose of training the eye to recognize correct proportion and training the hand to skillful and rapid drawing. The curriculum, however, consists mainly of the study of architectural forms and principles and their application in architectural design. From time to time the problems of the Society of Beaux Arts of Architects are given and the student drawings sent to New York for judgment.

The curriculum in architectural engineering gives a groundwork in mathematics and applied mechanics, and includes such studies as strength of materials, bridge, mill, and tall building construction, reinforced concrete, etc. The principles of these subjects are applied to all forms of building construction in a course given in the senior year, known as architectural engineering. While specializing in construction, this curriculum includes also the study of the forms and principles of architecture through such subjects as free-hand drawing, architectural history, architectural drawing, and architectural design.

Both curriculums in architecture prepare the student for the examinations of the Illinois State Board of Examiners of Architects, and graduates are exempt from examinations required for entrance into the American Institute of Architects, and from the preliminary examination for the prize in Architecture of the American Academy at Rome. The Plym Fellowship in Architecture is awarded annually to a graduate of the department. This prize, which is awarded by competition, amounts to \$1,000 and provides for one year of travel abroad for the study of architecture.

The American Institute of Architects offers annually a medal to be awarded to the graduate of the department whose work throughout the four years has been adjudged the best. In making the award the scholarship in all work for the entire curriculum is considered.

The Scarab Medal in Architecture is awarded annually to a student of the department. This prize is a bronze medal which is awarded by competition.

Students intending to take up the study of architecture should take free-hand and mechanical drawing and general history in high school.

### Equipment

The equipment of the department includes plaster casts of architectural detail and ornament; lantern slides of architectural subjects and of painting and sculpture; classified plates, photographs, and stereoscopic views; a working library of over 4,000 volumes on architecture and the allied arts; a collection of 300 examples of American woods, shown in three sections each; and collections of architectural drawings and of specimens of building materials, fittings and appliances.

A Balopticon is used for direct projection of photographs and colored plates, and a double electric lantern for projecting two pictures on the screen at once for comparative study. Geometrical and architectural models are lighted by a light properly adjusted for demonstration of the subjects of shades and shadows and conventional rendering. Wall space in the corridors of the department and in all drafting rooms has been prepared for exhibition purposes, and collections of drawings are constantly displayed. The department occupies the fourth floor of Engineering Hall, and part of the third; its quarters include drafting rooms for undergraduate and graduate work, lecture rooms, studios for free-hand drawing, and the Ricker Library of Architecture.

### CERAMIC ENGINEERING

This department offers courses of instruction relating to the fabrication of clay products, cement and glass, and enamels for metals.

In addition to the fundamental engineering courses, work is offered in the physical and chemical principles of the production of silicate products, the winning and preparation

of raw materials, their shaping, drying, and burning, or fusion, the compositions and application of the various glazes, glasses, enamels, and colors, the planning and construction of industrial plants, and the various machines, apparatus, kilns, and furnaces used in these plants.

Industrial cooperation and research are prosecuted, and a series of bulletins on ceramic subjects is being published.

### **Equipment**

The department of ceramic engineering is housed in a three-story brick building providing facilities in the way of lecture rooms, class rooms, and laboratories.

The ceramic laboratories contain apparatus for the testing of clays and the preparation of cements, enamels, and glasses; machinery for grinding the raw materials, for shaping bricks, tiles, saggers, pottery and refractories; kilns and furnaces for calcining and fusing; pyrometers, potentiometers, electric furnaces, recording instruments, and all other accessories for exact scientific and technical work.

A library pertaining to the silicate industries is available; also sets of working drawings representing the construction of important plants.

## **CIVIL ENGINEERING**

The purpose of the department is to make possible a systematic study of the principles of engineering and to give the students an opportunity for practise in the survey, design, and construction of public and other engineering works. The prime object is to bring about the development of the mental faculties of the student, particularly his initiative, and to help him to obtain a good grasp of the needs and opportunities afforded by engineering in general.

### **Equipment**

For the surveying courses there is a full equipment of engineers' transits, levels, plane-tables, and other instruments in use not only in ordinary and in railroad surveying, but also in more precise work.

In a building set apart for the purpose is a well equipped highway laboratory containing machines for testing bituminous and non-bituminous road materials, including brick, stone, and other road-making substances. The cement laboratory occupies a room in this building. It is provided with facilities for testing hydraulic cement, sand, and other aggregates used in concrete.

## **ELECTRICAL ENGINEERING**

This department provides a curriculum in the theory and application of electricity. The first two years of work are substantially the same as in the other engineering curriculums, including work in drafting room and shop, and instruction in the principles of mathematics and physics. In the third year a course in dynamo machinery is followed by the theory of alternating currents, while laboratory and design courses emphasize principles. Technical courses cover the generation, transmission, and distribution of electric power, and its various applications. In the laboratory a study of dynamos is followed in the fourth year by experiments in the operation of electrical machinery. Investigation of problems of power distribution is made in advanced laboratory and thesis work.

### **Equipment**

The 500-kilowatt power plant of the University supplies the electrical engineering laboratory with current for its operation.

The power equipment in the electrical engineering laboratory includes eighty-seven direct current machines with a total capacity of 450 kilowatts, thirty-seven alternating

current machines with a total capacity of 380 kilowatts, and sixty-three transformers with a total capacity of 380 kilowatts. A 17-panel experimental switchboard affords distribution and control.

The instrument room contains standards for the calibration of commercial instruments of all types, two hundred and fifty portable instruments for experimental work, and a 240 ampere-hour storage battery. The graduate laboratory contains apparatus for research including four oscillographs, one 2,000-cycle alternator, one 200,000-volt transformer, one 1,000-ampere direct current generator, and apparatus for high voltage direct current investigations. The photometer room contains apparatus for tests of the various light sources. Two special 100-line switchboards are connected with cables and apparatus for experiment in telephony. The equipment for electrometallurgical work includes one 30-kilowatt induction furnace, one 25-kilowatt arc furnace, two 30-kilowatt resistance furnaces, one 15-kilowatt vacuum furnace for melting, one 3-kilowatt vacuum furnace for annealing and one 1.5-kilowatt muffle furnace.

### MECHANICAL ENGINEERING

The courses in mechanical engineering are planned to present the theory and practise of the generation and transmission of power, and of the design, construction, operation, and testing of machinery of all kinds. In the laboratories emphasis is given to the engineering and economic principles of machine construction and to problems of scientific shop management.

#### Equipment

The *Designing Rooms* are supplied with drawing tables, and with reference books, files of trade catalogs, gear charts, and collections of blue-prints. A collection of kinematic models, sectional steam specialties, lantern slides, and photographs is also available.

The *Mechanical Engineering Laboratory* is equipped with machines and testing instruments for instruction in steam engineering, gas power engineering, refrigeration, heating and ventilation, including a 210-horsepower experimental boiler, equipped with chain-grate stoker, fuel economizer, and induced draft; a separately fired steam superheater; types of throttling, high speed automatic, and Corliss steam engines; steam condensers; a compound two-stage air compressor; a large compound duplex steam pump; a Kerr steam turbine; a DeLaval turbo-pump; a 200,000-pound Lea water-flow; a 10-ton ammonia compression refrigerating machine; a 10-ton ammonia absorption refrigerating machine; typical gas, gasoline, and oil engines; a 50-horsepower suction gas producer, house-heating boilers and furnaces; a 150-horsepower electric absorption and transmission dynamometer, and apparatus for instruction in heating and ventilation and the mechanical equipment of buildings. The central heating and power plant contains types of boilers, stokers, pumps, and engines in commercial service.

The *Shop Laboratories* are provided with machinery and apparatus to illustrate the process of the manufacture of machinery. The laboratories include the *Wood Shop* with an equipment of benches, lathes, machinery, and small tools needed in pattern construction; the *Foundry* equipped with cupola, brass furnaces, core ovens, molding machines, and facilities for bench and floor molding; the *Forge Shop* equipped with forges, anvils and small tools, a steam hammer, a power-driven punch and shear, and with gas and electric furnaces; and the *Machine Shop* with an equipment of lathes, planers, shapers, milling machines, grinders, boring mills, drill presses, and with typical small tools and fixtures used in manufacturing.

### MECHANICS, THEORETICAL AND APPLIED

The courses in theoretical and applied mechanics are designed to meet the needs of students of engineering.

The *Laboratory of Applied Mechanics* comprises the materials testing laboratory and the hydraulics laboratory. The equipment of the *materials testing laboratory* includes testing machines and apparatus for making physical tests of materials of construction, such as tension, compression, flexure, shearing, torsion, hardness, and impact tests, and tests under repeated load. The laboratory contains machines of capacity for testing full size structural and machine members. Among these is a universal machine of six hundred thousand pounds capacity. Facilities are provided for making, curing, and testing concrete and reinforced concrete test specimens. The *Hydraulics Laboratory* has facilities for furnishing water under a range of pressures and volumes. There is an equipment of devices for measuring and recording the flow of water, including measuring pits, water meters, weir channels, nozzles, pitometer, and Venturi meters. In the equipment are pumps, a stand-pipe, water motors, and a turbine water wheel for testing purposes. A supply of pressure gauges, weighing scales, and other auxiliary apparatus is provided.

### MINING ENGINEERING

The department of mining engineering offers courses of instruction in mining and metallurgical engineering to train men for the various phases of the mineral industry.

The work of the department adds to the preliminary courses in mathematics, languages, chemistry, physics, geology and general engineering, that are common to all courses in engineering specialized work in mine surveying, mining methods, geology, prospecting, mine examination and valuation, ventilation, mining machinery, coal washing and ore concentration, metallurgy, utilization of fuels, administration and organization of mines, mining law, and the design of mining and metallurgical structures.

There are three distinct options: coal mining, ore mining and metallurgical engineering, and by means of the electives offered, a student can also specialize along the geological phases of mining, including work in oil prospecting and development.

In addition to its work of instruction, the department concerns itself with the development and dissemination of scientific facts of service in improving the practise of mining, with reference to efficiency in operation, the security of life in the mines, and the conservation of the mineral resources of the State.

### Equipment

The drawing room contains the catalogs of the manufacturers of mining machinery with a complete card index, the standard reference books on mine and mill design, and an unusually complete collection of photographs, blue-prints and drawings of mines, mine structures, and ore and coal preparation, and metallurgical plants.

The mine-gas and safety-lamp laboratory contains safety lamps of different types, electric and magnetic locking appliances, a photometer, a dark room for photometric work, Ryan Oldham, and Hailwood safety-lamp testing apparatus, appliances for gas and dust analysis and explosibility tests, and a Bacharach hydro volume and pressure recorder.

The coal washing and ore dressing laboratory contains for crushing, rolls, gyratory and jaw crushers, and a 500-pound 3-stamp battery; for screening and sizing, trommels, shaking and vibrating screens, and classifiers; for concentrating and cleaning, pan, piston and pulsating jigs, bumping table, vanner, sand, concentrating table, and slimer. These machines can handle from 3 to 5 tons of coal and one ton of ore an hour. There are also a complete sampling and drying equipment, a cyanide testing plant, a Huff electrostatic machine, flotation units, a magnetic separator and other appliances used for preliminary testing. Adjoining this laboratory is a chemical and assay laboratory equipped for the analytical work required in connection with coal washing and ore concentration.

The explosives and drilling laboratory contains types of rock and coal drills, an air meter, a diamond drill, chain and puncher, coal cutters, and a complete outfit for demonstrating the use of explosives.

### **MINE INVESTIGATION STATION AND LABORATORIES**

Cooperating with the department of mining engineering and with the State Geological Survey, the Federal Government in 1909 established at the University a mine rescue station in charge of a resident mining engineer. The purpose of the station was to interest all connected with the mining industry in modern appliances and breathing and resuscitation apparatus as part of the normal equipment of mines. At the station mine bosses and others were trained in the use of such apparatus, this service being rendered freely to all who desired the benefits thereof.

A direct outcome of the cooperative rescue station has been the establishment of a comprehensive mine rescue service by the State of Illinois. This state service has rendered unnecessary the maintenance of the cooperative rescue station in Urbana. The station is now maintained by the University for the training of students, but the United States Bureau of Mines keeps certain apparatus on exhibition.

The Cooperative Investigation of Illinois mining conditions is another outgrowth of the mine rescue station. This cooperation between the Engineering Experiment Station of the University of Illinois, the Illinois State Geological Survey and the United States Bureau of Mines has for a number of years carried on an investigation of the coal resources and mining practises in the State.

All laboratories of the mining department are available for the use of the Cooperative Investigation and are used jointly by the engineers of the three cooperating agencies.

The United States Bureau of Mines has established in Urbana one of its sub-stations for the Middle West. It is in charge of a superintendent and there are in addition two resident mining engineers, a gas engineer, and a chemist.

### **MUNICIPAL AND SANITARY ENGINEERING**

This curriculum is designed to train students for the duties of the engineer employed on the design, construction, and operation of public works and public utilities, and for general engineering work.

The methods of training are intended to develop power to take up and solve new problems connected with municipal public works, as well as to design and to superintend the ordinary constructions. Surveying, structural materials, and structural design are taught as in the civil engineering curriculum. Chemistry and bacteriology of water supply and sewage disposal are given; and instruction in mechanical and electrical engineering in the generation and transmission of power.

### **PHYSICS**

The department of physics occupies the Laboratory of Physics. This building supplies facilities and equipment for instruction and investigation in physics. Gas, distilled water, compressed air and vacuum, and direct and alternating electric currents are available in all parts of the building. There is a collection of over 4,000 pieces of apparatus, and only a small part of the equipment is antiquated. New investigations can usually be started with the apparatus on hand. There are two workshops, one for advanced students and instructors, and one for the mechanics of the department. The students' shop is equipped with lathes, drill press, and bench tools. The mechanics' shop contains lathes, milling machines, drill press, and other facilities for fine machine work.

The University Library contains sets of journals of physics and the related sciences in English, French and German. The recent volumes of the physical journals, together with a collection of text-books, encyclopedias, dictionaries, and other reference books, are in the special library of the Laboratory.

**RAILWAY ENGINEERING<sup>1</sup>**

The department of railway engineering is organized to train students for service in the technical departments of railways. It offers curriculums in railway civil engineering, railway electrical engineering, and railway mechanical engineering, all three of which are substantially the same as the corresponding civil, electrical, and mechanical engineering curriculums to the middle of the third year, after which is given in each course a group of subjects relating to the technical problems of steam or electric railways. The curriculums in railway civil and railway mechanical engineering are designed for those who wish to enter steam railway service in the engineering and motive power departments respectively, while the curriculum in railway electrical engineering is intended for those who will serve on electric railways or in the electrical departments of steam roads. The special subjects of the curriculum in railway civil engineering concern the location, design, construction, and maintenance of railway track and equipment, and the design of railway structures. The courses in railway electrical engineering deal with the design and construction of electrical railway equipment, the operation and performance of electric cars and locomotives and with the problems which arise in the electrification of steam lines. The curriculum in railway mechanical engineering adds to the fundamentals of the general mechanical engineering curriculum special railway courses on the design of locomotives and cars, the resistance of trains, the performance and tests of locomotives, and tests of railway equipment.

**Equipment**

A locomotive testing plant, built from the original designs of the department, occupies a building forty by one hundred fifteen feet. The plant is devoted exclusively to making tests to determine the performance of locomotives. The locomotives tested are furnished by certain western railroad systems under an arrangement which insures the maintenance in the plant of a locomotive of latest design.

For purposes of instruction a light freight locomotive is permanently available in this laboratory. This locomotive, donated to the department by the Illinois Central Railroad, is of the mogul type, has 19x26 simple cylinders using saturated steam, 1,530 square feet of heating surface, 26 square feet of grate area, and weighs with its tender 206,000 pounds.

The department owns and operates, jointly with the Illinois Central Railroad, a railway test car designed for experimental work on steam roads. It is equipped for making train resistance and locomotive performance tests, and during the last fifteen years has been in frequent operation in carrying on resistance and tonnage rating tests on the Illinois Central Railroad and on several eastern roads.

For work on electric roads the department owns also an electric test car, of the inter-urban type, designed and built for the University. It is equipped with four 50 horsepower direct current motors and with the Westinghouse multiple control system, and is provided with instruments for recording power, speed, acceleration, and the other data needed in road tests, and for measuring and recording the electric resistance of rail bonds. Through the courtesy of the Illinois Traction System this car is operated on its lines, which enter the campus of the University.

The department laboratory equipment includes a drop-testing machine and a brake-shoe testing machine, both constructed in accordance with the standards of the Master Car Builders Association. The drop-testing machine is designed for use in testing the strength of railroad rails, car axles, car couplers, and draft gears; and may be used in studies of the physical properties of structural materials of any sort. The brake-shoe testing machine supplies means for determining the wearing properties and frictional qualities of brake-shoes, such as are employed in regular service on railroad trains.

<sup>1</sup> See also *School of Railway Engineering and Administration*, page 184.

Much of the work in the railway courses is given in the departments of civil, electrical, and mechanical engineering, and the shop and laboratory equipment of these departments is available for students in the railway department.

Three steam roads—the Illinois Central, the Cleveland, Cincinnati, Chicago & St. Louis, and the Wabash railroads—and two electric interurban roads—the Illinois Traction System and the Kankakee and Urbana railway—enter Champaign and Urbana. The department is afforded by them opportunities for practical road tests and field work.

### NON-TECHNICAL ELECTIVES

The non-technical electives for students in the College of Engineering are subject to the following restrictions:

1. They are restricted to courses offered in the College of Liberal Arts and Sciences and in the College of Commerce.
2. Such courses must not be open to freshman students.
3. The courses must be approved by the head of the department in which the student making the election is registered.
4. Students in the College of Engineering electing the third and fourth years' work in the Reserve Officers' Training Corps may substitute the four hours' credit thus received for three hours of the required non-technical electives.

### GENERAL ENGINEERING LECTURES FOR FRESHMEN

One general lecture, sufficiently popular in character to interest and inspire young students, will be given each week. All freshmen engineering students are required to attend this lecture.

### TRIPS OF INSPECTION

Students in the College of Engineering are required to make a trip of inspection during their senior year. Such trips supply an opportunity to inspect the work of industrial establishments and of engineering enterprises. They usually occupy from three to four days, and are taken during term time, under the supervision of University authorities. They involve an expense from \$15 to \$25 to each student. For the year 1918-19, the trips will occur on May 1, 2, 3, 1919.

No student not in line for graduation shall be permitted to go on the annual inspection trip of the College of Engineering without the approval of the General Committee on Inspection Trips.

### CURRICULUMS AND DEGREES

The curriculums leading to the degree of Bachelor of Science in the College of Engineering are given herewith in full. Each of the twelve curriculums given may ordinarily be completed in a period of four years.

A graduate of the University of Illinois in architectural, ceramic, civil, electrical, mechanical, mining, municipal and sanitary, or railway engineering may receive the degree of an allied curriculum on the completion of from thirty to thirty-six semester hours work approved by the faculty. This work may ordinarily be done in one academic year.

A graduate of the College of Liberal Arts and Sciences of the University of Illinois, or of any college of equal standing, whose mathematical training includes the calculus, who has had an acceptable course in physics, and sufficient training in mechanics to enable him to begin the mechanics of the junior year, may receive the degree of Bachelor of Science in Engineering on the completion of sixty-eight credit hours of work in engineering under the direction of the faculty. This work may be ordinarily done in two academic years. Candidates for the degree in the department of architecture are not required to be prepared in calculus or mechanics, but should have special preparation in drawing.



## RHETORIC PREREQUISITE FOR JUNIOR STANDING

The following requirements in rhetoric apply to students in the College of Engineering.

1. Rhetoric 1 and 2 shall hereafter be a prerequisite for junior standing in the College of Engineering, and no student in this College shall be permitted to register in more than eight hours of prescribed junior work without having passed or being registered in Rhetoric 1 or 2.

2. Any student in this College whose written work shows that he is unable to use good English shall be reported by his instructor to a standing committee of the College, which committee shall have authority to direct the student to take as a prerequisite for graduation such additional work in rhetoric as may be prescribed by the department of English.

## CURRICULUMS IN ENGINEERING

As a result of war-time conditions, minor changes in some of the curriculums in engineering have been necessary during the year 1918-19.

## Curriculum in Architecture

FIRST SEMESTER		FIRST YEAR		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>		Hours <sup>1</sup>
Arch. 31—Arch. and Freehand Drawing.....	4	Arch. 32—Arch. and Freehand Drawing.....	4	Chem. 1a or 1b—Inorganic Chemistry.....	3 or 4
G. E. D. 2—Descriptive Geometry.....	4	T. and A. M. 14—Elem. Mechanics.....	4	Rhet. 2—Rhetoric and Themes.....	3
Math. 2—Advanced Algebra.....	3	Phys. Ed. 2—Gymnasium.....	1	Mil. 2a—Military Drill.....	$\frac{1}{2}$
Math. 4—Trigonometry.....	2	Mil. 2b—Military Theory.....	$\frac{1}{2}$	Engineering Lecture.....	0
Rhet. 1—Rhetoric and Themes.....	3				
Phys. Ed. 1 and 1a—Gymnasium and Hygiene	1				
Mil. 1a—Military Drill.....	$\frac{1}{2}$				
Mil. 1b—Military Theory.....	$\frac{1}{2}$				
Engineering Lecture.....	0				
Total.....	18	Total.....	16 or 17		
SECOND YEAR		THIRD YEAR		FOURTH YEAR	
Arch. 13—History of Architecture.....	2	Arch. 14—History of Architecture.....	2	Arch. 27—Freehand Drawing.....	2
Arch. 23—Freehand Drawing.....	2	Arch. 24—Freehand Drawing.....	2	Arch. 37—Design.....	7
Arch. 33—Design.....	3	Arch. 34—Design.....	3	Arch. 68—Specifications.....	3
Arch. 43—Working Drawings.....	3	Arch. 44—Working Drawings.....	3	Arch. 99—Inspection Trip.....	0
Phys. 9a—Physics Lectures.....	2	Phys. 9b—Physics Lectures.....	2	M. E. 25—Heating and Ventilation.....	2
Phys. 10a—Physics Laboratory.....	2	Phys. 10b—Physics Laboratory.....	2	Non-technical Elective <sup>2</sup> .....	3
T. and A. M. 15—Strength of Materials.....	3	T. and A. M. 16—Strength of Materials.....	3	Total.....	17
Mil. 3a—Military Drill.....	$\frac{1}{2}$	Mil. 4a—Military Drill.....	$\frac{1}{2}$		
Mil. 3b—Military Theory.....	$\frac{1}{2}$	Mil. 4b—Military Theory.....	$\frac{1}{2}$		
Total.....	18	Total.....	18		
THIRD YEAR		FOURTH YEAR		FIFTH YEAR	
Arch. 15—History of Architecture.....	2	Arch. 16—History of Architecture.....	2	Arch. 28—Freehand Drawing.....	2
Arch. 25—Freehand Drawing.....	2	Arch. 26—Freehand Drawing.....	2	Arch. 38—Advanced Design or Thesis.....	7
Arch. 35—Design.....	5	Arch. 36—Design.....	5	Arch. 60—Special Lectures.....	1
Arch. 45—Graphic Statics.....	3	Arch. 46—Roofs.....	3	Arch. 67—Theory of Form and Color.....	2
Arch. 65—Theory of Architecture.....	1	Arch. 55—Building Sanitation.....	1	Non-technical Elective <sup>1</sup> .....	5
E. E. 90—Building Illumination.....	1	Arch. 66—Theory of Architecture.....	1		
French or German.....	4	French or German.....	4		
Total.....	18	Total.....	18		
FOURTH YEAR		FIFTH YEAR		SIXTH YEAR	
Arch. 27—Freehand Drawing.....	2	Arch. 28—Freehand Drawing.....	2	Arch. 29—Freehand Drawing.....	2
Arch. 37—Design.....	7	Arch. 38—Advanced Design or Thesis.....	7	Arch. 39—Advanced Design or Thesis.....	7
Arch. 68—Specifications.....	3	Arch. 60—Special Lectures.....	1	Arch. 61—Theory of Form and Color.....	2
Arch. 99—Inspection Trip.....	0	Arch. 67—Theory of Form and Color.....	2	Non-technical Elective <sup>1</sup> .....	5
M. E. 25—Heating and Ventilation.....	2	Non-technical Elective <sup>1</sup> .....	5		
Non-technical Elective <sup>2</sup> .....	3	Total.....	17		
Total.....	17	Total.....	17		

<sup>1</sup>Semester hours. For definition, see page 237.

<sup>2</sup>Students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2, may be excused from Rhetoric 1. See page 72.

<sup>3</sup>Any approved non-technical course. See page 142.

## Curriculum in Architectural Engineering

## FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
Chem. 1a or 1b—Inorganic Chemistry.....	3 or 4	Chem. 4—Qualitative Analysis.....	4
G. E. D. 1—Elements of Drafting.....	4	G. E. D. 2—Desc. Geometry.....	4
Math. 2—Advanced Algebra.....	3	Math. 6—Analytic Geometry.....	5
Math. 4—Trigonometry.....	2	Rhet. 2—Rhetoric and Themes.....	3
Rhet. 1—Rhetoric and Themes.....	3	Phys. Ed. 2—Gymnasium.....	1
Phys. Ed. 1 and 1a—Gymnasium and Hygiene	1	Mil. 2a—Military Drill.....	$\frac{1}{2}$
Mil. 1a—Military Drill.....	$\frac{1}{2}$	Mil. 2b—Military Theory.....	$\frac{1}{2}$
Mil. 1b—Military Theory.....	$\frac{1}{2}$	Engineering Lecture.....	0
Engineering Lecture.....	0		
Total.....	17 or 18	Total.....	18

## SECOND YEAR

Arch. 13—History of Architecture.....	2	Arch. 14—History of Architecture.....	2
A. E. 33—Arch. and Freehand Drawing.....	3	A. E. 34—Design.....	3
A. E. 43—Working Drawings.....	2	A. E. 44—Working Drawings.....	2
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
Phys. 1a—Physics Lectures.....	3	Phys. 1b—Physics Lectures.....	2
Phys. 3a—Physics Laboratory.....	2	Phys. 3b—Physics Laboratory.....	2
Mil. 3a—Military Drill.....	$\frac{1}{2}$	T. and A. M. 20—Analytical Mechanics.....	3
Mil. 3b—Military Theory.....	$\frac{1}{2}$	Mil. 4a—Military Drill.....	$\frac{1}{2}$
		Mil. 4b—Military Theory.....	$\frac{1}{2}$
Total.....	18	Total.....	18

## THIRD YEAR

Arch. 15—History of Architecture.....	2	Arch. 16—History of Architecture.....	2
A. E. 35—Design.....	3	A. E. 36—Design.....	3
A. E. 45—Graphic Statics.....	3	A. E. 46—Graphic Statics.....	3
Language.....	4	Language.....	4
T. and A. M. 25—Resistance of Materials.....	4	T. and A. M. 26—Analytical Mechanics and Hydraulics.....	4
Non-technical Elective <sup>2</sup> .....	2	Non-technical Elective <sup>2</sup> .....	2
Total.....	17 or 18	Total.....	18

## FOURTH YEAR

A. E. 47—Architectural Engineering.....	5	A. E. 48—Architectural Engineering.....	5
A. E. 57—Fireproof Construction.....	2	A. E. 58—Fireproof Construction.....	2
A. E. 99—Inspection Trip.....	0	A. E. 67—Building Sanitation.....	2
E. E. 92—Lighting and Wiring.....	2	A. E. 58—Estimates and Specifications.....	4
M. E. 23—Mech. Equipment of Buildings.....	5	Non-technical Elective <sup>2</sup> .....	3
Non-technical Elective <sup>2</sup> .....	3		
Total.....	17	Total.....	16

## Curriculum in Ceramic Engineering

## FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
Chem. 1a or 1b—Inorganic Chemistry.....	3 or 4	Chem. 4—Qualitative Analysis.....	4
G. E. D. 1—Elements of Drafting.....	4	G. E. D. 2—Descriptive Geometry.....	4
Math. 2—College Algebra.....	3	Math. 6—Analytic Geometry.....	5
Math. 4—Trigonometry.....	2	Rhet. 2—Rhetoric and Themes.....	3
Rhet. 1—Rhetoric and Themes.....	3	Phys. Ed. 2—Gymnasium.....	1
Phys. Ed. 1 and 1a—Gymnasium and Hygiene	1	Mil. 2a—Military Drill.....	$\frac{1}{2}$
Mil. 1a—Military Drill.....	$\frac{1}{2}$	Mil. 2b—Military Theory.....	$\frac{1}{2}$
Mil. 1b—Military Theory.....	$\frac{1}{2}$	Engineering Lecture.....	0
Engineering Lecture.....	0		
Total.....	17 or 18	Total.....	18

Summer Reading, 50 points

<sup>1</sup>Semester hours. For definition, see page 237.<sup>2</sup>Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2, may be excused from Rhetoric 1. See page 72.<sup>3</sup>Any approved non-technical course. See page 142.

## SECOND YEAR

Chem. 5a—Quantitative Analysis.....	5	Chem. 5b—Quantitative Analysis.....	5
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
Phys. 1a—Physics Lectures.....	3	Phys. 1b—Physics Lecture.....	2
Phys. 3a—Physics Laboratory.....	2	Phys. 3b—Physics Laboratory.....	2
Mil. 3a—Military Drill.....	$\frac{1}{2}$	T. and A. M. 20—Analytical Mechanics.....	3
Mil. 3b—Military Theory.....	$\frac{1}{2}$	Mil. 4a—Military Drill.....	$\frac{1}{2}$
Non-technical Elective <sup>1</sup> .....	3	Mil. 4b—Military Theory.....	$\frac{1}{2}$
		Non-technical Elective <sup>1</sup> .....	3

Total..... 19

Total..... 19

Summer Reading, 50 points

## THIRD YEAR

Cer. 1—Ceramic Materials.....	3	Cer. 3—Industrial Calculations.....	3
Cer. 2—Winning and Preparation of Clays.....	3	Cer. 5—Ceramic Bodies.....	5
Chem. 65—Gas and Fuel Analysis.....	2	Cer. 12—Manufacturing Processes.....	3
French or German.....	4	C. E. 76—Surveying.....	2
T. and A. M. 21—Analytical Mechanics.....	2	French or German.....	4
T. and A. M. 25—Resistance of Materials.....	4		
Total.....	18	Total.....	17

## FOURTH YEAR

FIRST SEMESTER		SECOND SEMESTER	
Cer. 4—Drying and Burning.....	4	Cer. 9—Ceramic Construction.....	4
Cer. 6—Glazes.....	6	M. E. 62—M. E. Laboratory.....	3
Cer. 17—Physical Chemistry.....	4	Non-technical Elective <sup>1</sup> .....	3
Cer. 99—Inspection Trip.....	0	Thesis or (with the approval of the Department) Technical Elective.....	3 or 5
Technical Elective.....	3	Technical Elective.....	2 or 0
Total.....	17	Total.....	15

## Curriculum in Civil Engineering

## FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>2</sup>		Hours <sup>2</sup>
Chem. 1a or 1b—Inorganic Chemistry.....	3 or 4	Chem. 4—Inorganic Chemistry.....	4
G. E. D. 1—Elements of Drafting.....	4	G. E. D. 2—Descriptive Geometry.....	4
Math. 2—Advanced Algebra.....	3	Math. 6—Analytic Geometry.....	5
Math. 4—Trigonometry.....	2	Rhet. 2—Rhetoric and Themes.....	3
Rhet. 1—Rhetoric and Themes.....	3	Phys. Ed. 2—Gymnasium.....	1
Phys. Ed. 1 and 1a—Gymnasium and Hygiene	1	Mil. 2a—Military Drill.....	$\frac{1}{2}$
Mil. 1a—Military Drill.....	$\frac{1}{2}$	Mil. 2b—Military Theory.....	$\frac{1}{2}$
Mil. 1b—Military Theory.....	$\frac{1}{2}$	Engineering Lecture.....	0
Engineering Lecture.....	0		
Total.....	18	Total.....	18

Summer Reading, 50 points

## SECOND YEAR

C. E. 27—Plain Surveying.....	3	C. E. 28—Higher Surveying.....	3
Language.....	4	Language.....	4
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
Phys. 1a—Physics Lectures.....	3	Phys. 1b—Physics Lectures.....	2
Phys. 3a—Physics Laboratory.....	2	Phys. 3b—Physics Laboratory.....	2
Mil. 3a—Military Drill.....	$\frac{1}{2}$	T. and A. M. 20—Analytical Mechanics.....	3
Mil. 3b—Military Theory.....	$\frac{1}{2}$	Mil. 4a—Military Drill.....	$\frac{1}{2}$
		Mil. 4b—Military Theory.....	$\frac{1}{2}$
Total.....	18	Total.....	18

## THIRD YEAR

C. E. 51—Railroad Surveying.....	5	C. E. 52—Roads and Pavements.....	3
M. E. 1—Steam Engines and Boilers or		C. E. 60—Structural Stresses.....	4
C. E. 57—Stream Flow.....	3	C. E. 62—Structural Details.....	2
T. and A. M. 21—Analytical Mechanics.....	2	C. E. 70—Seminar.....	1
T. and A. M. 29—Resistance of Materials.....	5	T. and A. M. 10—Hydraulics.....	3
Non-technical Elective <sup>1</sup> .....	3	Non-technical Elective <sup>1</sup> .....	3
Total.....	18	Total.....	16

<sup>1</sup> Any approved non-technical course. See page 142.<sup>2</sup> Semester hours. For definition, see page 237.<sup>3</sup> Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2, may be excused from Rhetoric 1. See page 72.

## FOURTH YEAR

C. E. 79—Cement Laboratory.....	1	C. E. 80—Contracts and Specifications.....	2
C. E. 81—Theory of Reinforced Concrete....	2	C. E. 82—Concrete Design.....	4
C. E. 85—Steel Bridge Design.....	5	Non-technical Elective <sup>1</sup> .....	3
C. E. 99—Inspection Trip.....	0	Technical Electives.....	9
M. and S. E. 2—Water Supply Engineering..	4		
Technical Electives.....	6		
Total.....	18	Total.....	18

TECHNICAL ELECTIVES<sup>2</sup>—FOURTH YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>3</sup>		Hours <sup>3</sup>
C. E. 37—Map Reading and Military Sketching.....	2	C. E. 84—Engineering Functions.....	2
C. E. 57—Stream Flow.....	2	C. E. 86—Public Service Engineering.....	3
C. E. 59—Drainage Engineering.....	2	C. E. 90—Hydro-Economics.....	2
C. E. 77—Masonry Construction.....	4	C. E. 94—Highway Administration.....	3
C. E. 87—Advanced Bridge Analysis.....	2	C. E. 96—Road Materials Laboratory.....	2
C. E. 89—Hydro-Economics.....	2	C. E. 98—Thesis.....	2
C. E. 93—Road Construction.....	3	Chem. 73—Asphalts, Tars, etc.....	2
C. E. 97—Thesis.....	1	E. E. 4—Electrical Engineering.....	2
Min. 1—Earth and Rock Excavation.....	3	E. E. 64—Electrical Engineering Lab.....	1
		M. and S. E. 3—Sewerage.....	3
		M. and S. E. 9—Hydraulic Design and Construction.....	2
		R. E. 33—Economics of Railway Location...	4

## Curriculum in Electrical Engineering

## FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>4</sup>		Hours <sup>4</sup>
Chem. 1a or 1b—Inorganic Chemistry.....	3 or 4	Chem. 4—Qualitative Analysis.....	4
G. E. D. 1—Elements of Drafting.....	4	G. E. D. 2—Descriptive Geometry.....	4
Math. 2—Algebra.....	3	Math. 6—Analytic Geometry.....	5
Math. 4—Trigonometry.....	2	Rhet. 2—Rhetoric and Themes.....	3
Rhet. 14—Rhetoric and Themes.....	3	Phys. Ed. 2—Gymnasium.....	1
Phys. Ed. 1 and 1a—Gymnasium and Hygiene	1	Mil. 2a—Military Drill.....	$\frac{1}{2}$
Mil. 1a—Military Drill.....	$\frac{1}{2}$	Mil. 2b—Military Theory.....	$\frac{1}{2}$
Mil. 1b—Military Theory.....	$\frac{1}{2}$	Engineering Lecture.....	0
Engineering Lecture.....	0		
Total.....	17 or 18	Total.....	18

## SECOND YEAR

Language.....	4	Language.....	4
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
M. E. 75 and 77—Forge and Foundry, or		M. E. 75 and 77—Forge and Foundry, or	
M. E. 79—Pattern Work.....	3	M. E. 79—Pattern Work.....	3
Phys. 1a—Physics Lectures.....	3	Phys. 1b—Physics Lectures.....	2
Phys. 3a—Physics Laboratory.....	2	Phys. 3b—Physics Laboratory.....	2
Mil. 3a—Military Drill.....	$\frac{1}{2}$	T. and A. M. 20—Analytical Mechanics.....	3
Mil. 3b—Military Theory.....	$\frac{1}{2}$	Mil. 4a—Military Drill.....	$\frac{1}{2}$
		Mil. 4b—Military Theory.....	$\frac{1}{2}$
Total.....	18	Total.....	18

## THIRD YEAR

E. E. 25—Direct Current Apparatus.....	4	E. E. 26—Alternating Currents.....	4
E. E. 75—Elec. Eng. Laboratory.....	2	E. E. 76—Elec. Eng. Laboratory.....	2
Math. 9a—Integral Calculus.....	2	M. E. 2—Steam Engineering.....	3
M. E. 81—Machine Work.....	3	Phys. 4b—Elec. and Mag. Measurement.....	2
Phys. 4a—Elec. and Mag. Measurement.....	2	T. and A. M. 26—Anal. Mechanics and Hydraulics.....	4
T. and A. M. 25—Resistance of Materials...	4	Non-technical Elective <sup>1</sup> .....	3
Total.....	17	Total.....	18

## FOURTH YEAR

E. E. 99—Inspection Trip.....	0	E. E. 96—Seminar.....	1
E. E. 95—Seminar.....	1	E. E. 36—Alternating Current Apparatus...	4
E. E. 33—Alternating Current Apparatus...	4	E. E. 86—Elec. Eng. Laboratory.....	2
E. E. 85—Elec. Eng. Laboratory.....	2	E. E. 56—Electrical Design.....	4
E. E. 53—Electrical Design.....	2	E. E. 98—Thesis or Elective.....	3
M. E. 61—Power Measurement.....	2	Non-technical Elective <sup>1</sup> .....	3
M. E. 11—Thermodynamics.....	3		
Non-technical Elective <sup>1</sup> .....	3		
Total.....	17	Total.....	17

<sup>1</sup>Any approved non-technical course. See page 142.<sup>2</sup>Students desiring to specialize in Structural Engineering should elect C. E. 77 and 87. Students desiring to specialize in Highway Engineering should elect C. E. 93, 94, 96 and Chem. 73.<sup>3</sup>Semester hours. For definition, see page 237.<sup>4</sup>Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2, may be excused from Rhetoric 1. See page 72.

## Curriculum in Mechanical Engineering

## FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
Chem. 1a or 1b—Inorganic Chemistry.....	3 or 4	Chem. 4—Qualitative Analysis.....	4
G. E. D. 1—Elements of Drafting.....	4	G. E. D. 2—Descriptive Geometry.....	4
Math. 2—Algebra.....	3	Math. 6—Analytic Geometry.....	5
Math. 4—Trigonometry.....	2	Rhet. 2—Rhetoric and Themes.....	3
Rhet. 1 <sup>2</sup> —Rhetoric and Themes.....	3	Phys. Ed. 2—Gymnasium.....	1
Phys. Ed. 1 and 1a—Gymnasium and Hygiene	1	Mil. 2a—Military Drill.....	$\frac{1}{2}$
Mil. 1a—Military Drill.....	$\frac{1}{2}$	Mil. 2b—Military Theory.....	$\frac{1}{2}$
Mil. 1b—Military Theory.....	$\frac{1}{2}$	Engineering Lecture.....	0
Engineering Lecture.....	0		
Total.....	17 or 18	Total.....	18

## SECOND YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
Language.....	4	Language.....	4
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
M. E. 75 and 79—Forge and Pattern Work or		M. E. 75 and 79—Forge and Pattern Work or	
M. E. 77—Foundry.....	3	M. E. 77—Foundry.....	3
Phys. 1a—Physics Lectures.....	3	Phys. 1b—Physics Lectures.....	2
Phys. 3a—Physics Laboratory.....	2	Phys. 3b—Physics Laboratory.....	2
Mil. 3a—Military Drill.....	$\frac{1}{2}$	T. and A. M. 20—Analytical Mechanics.....	3
Mil. 3b—Military Theory.....	$\frac{1}{2}$	Mil. 4a—Military Drill.....	$\frac{1}{2}$
		Mil. 4b—Military Theory.....	$\frac{1}{2}$
Total.....	18	Total.....	18

## THIRD YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
Math. 9a—Integral Calculus.....	2	M. E. 12—Thermodynamics.....	5
M. E. 3—Steam Engineering.....	3	M. E. 30—Mechanics of Machinery.....	5
M. E. 81—Machine Work.....	3	M. E. 64—Power Measurement.....	3
T. and A. M. 21—Analytical Mechanics.....	2	M. E. 82—Machine Work.....	2
T. and A. M. 29—Resistance of Materials.....	5	Non-technical Elective <sup>3</sup> .....	3
Non-technical Elective <sup>3</sup> .....	3		
Total.....	18	Total.....	18

## FOURTH YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
E. E. 11—Direct Current Apparatus.....	3	E. E. 12—Alternating Current Apparatus....	3
E. E. 61—Direct Current Laboratory.....	1	E. E. 62—Alternating Current Laboratory....	1
M. E. 15—Gas Power Engineering, or		M. E. 26—Heating and Ventilation.....	3
M. E. 37—Principles of Management.....	3	M. E. 32—Power Transmission.....	3
M. E. 43—Engineering Design.....	5	M. E. 44—Engineering Design or	
M. E. 65—Power Laboratory.....	3	M. E. 66—Power Laboratory.....	2
M. E. 99—Inspection Trip.....	0	M. E. 52—Power Plant Design.....	3
Non-technical Elective <sup>3</sup> .....	3		
Total.....	18	Total.....	15

## Curriculum in Mining Engineering

## FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
Chem. 1a or 1b—Inorganic Chemistry.....	3 or 4	Chem. 4—Qualitative Analysis.....	4
G. E. D. 1—Elements of Drafting.....	4	G. E. D. 2—Descriptive Geometry.....	4
Math. 2—College Algebra.....	3	Math. 6—Analytic Geometry.....	5
Math. 4—Trigonometry.....	2	Rhet. 2—Rhetoric and Themes.....	3
Rhet. 1 <sup>2</sup> —Rhetoric and Themes.....	3	Phys. Ed. 2—Gymnasium.....	1
Phys. Ed. 1 and 1a—Gymnasium and Hygiene	1	Mil. 2a—Military Drill.....	$\frac{1}{2}$
Mil. 1a—Military Drill.....	$\frac{1}{2}$	Mil. 2b—Military Theory.....	$\frac{1}{2}$
Mil. 1b—Military Theory.....	$\frac{1}{2}$	Engineering Lecture.....	0
Engineering Lecture.....	0		
Total.....	17 or 18	Total.....	18

## SECOND YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
Geol. 13a—Engineering Geology.....	3	Geol. 13b—Engineering Geology.....	3
Language.....	4	Language.....	4
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
Phys. 1a—Physics Lectures.....	3	Phys. 1b—Physics Lectures.....	2
Phys. 3a—Physics Laboratory.....	2	Phys. 3b—Physics Laboratory.....	2
Mil. 3a—Military Drill.....	$\frac{1}{2}$	T. and A. M. 20—Analytical Mechanics.....	3
Mil. 3b—Military Theory.....	$\frac{1}{2}$	Mil. 4a—Military Drill.....	$\frac{1}{2}$
		Mil. 4b—Military Theory.....	$\frac{1}{2}$
Total.....	18	Total.....	18

<sup>1</sup> Semester hours. For definition, see page 237.<sup>2</sup> Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2, may be excused from Rhetoric 1. See page 72.<sup>3</sup> Any approved non-technical course. See page 142.

## THIRD YEAR

Chem. 5a—Quantitative Analysis.....	5	C. E. 58—Graphic Statics.....	2
C. E. 35—Surveying.....	3	E. E. 4—Elementary Electrical Eng.....	2
M. E. 1—Steam Engineering.....	3	E. E. 64—Electrical Engineering Lab.....	1
Min. 1 <sup>1</sup> —Earth and Rock Excavation.....	3	Min. 4 <sup>1</sup> —Mining Methods.....	3
T. and A. M. 25—Resistance of Materials....	4	Min. 6 <sup>1</sup> —Mechanical Engineering of Mines..	2
		T. and A. M. 26—Analytical Mechanics and Hydraulics.....	4
		Non-technical Elective <sup>2</sup> .....	3
Total.....	18	Total.....	17

## FOURTH YEAR

## I. Coal Mining Option

Chem. 7—Metallurgy.....	3	Min. 8—Mine Law, Admin. and Accounts... 3	3
Chem. 65—Technical Gas and Fuel Analysis..	2	Min. 13—Utilization of Fuels.....	2
Min. 5—Mine Ventilation.....	3	Min. 42—Coal Plant Design.....	2
Min. 9—Coal and Ore Preparation.....	3	Min. 62—Mine Surveying.....	3
Min. 41—Principles of Coal Plant Design....	3	Min. 64—Coal Mining Laboratory.....	3
Min. 99—Inspection Trip.....	0	Min. 68—Mine Topography.....	1
Non-technical Elective <sup>2</sup> .....	3	Min. 90—Mining and Metallurgical Reports..	1
		Non-technical Elective <sup>2</sup> .....	3
Total.....	17	Total.....	18

## II. Ore Mining Option

Chem. 7—Metallurgy.....	3	Geol. 2—Economic Geology.....	3
Chem. 69—Metallurgical Laboratory and As- saying.....	2	Min. 8—Mine Law, Administration and Ac- counts.....	3
Min. 15—Principles of Mine Ventilation.....	1	Min. 44—Ore Plant Design.....	2
Min. 19—Ore and Coal Preparation.....	3	Min. 62—Mine Surveying.....	3
Min. 21—Mine Examination and Valuation..	2	Min. 66—Ore Concentration Laboratory....	3
Min. 43—Principles of Ore Plant Design....	3	Min. 90—Mining and Metallurgical Reports..	1
Min. 99—Inspection Trip.....	0	Non-technical Elective <sup>2</sup> .....	3
Non-technical Elective <sup>2</sup> .....	3		
Total.....	17	Total.....	18

## III. Metallurgical Option

Chem. 65—Technical Gas and Fuel Analysis..	2	Chem. 78—Metallography.....	2
Chem. 69—Metallurgical Laboratory and Assaying.....	2	Geol. 2—Economic Geology.....	3
Min. 2—Mining Principles.....	3	Min. 8—Administration and Accounts.....	2
Min. 17—Problems.....	1	Min. 13—Utilization of Fuels.....	2
Min. 19—Ore and Coal Preparation.....	3	Min. 46—Mill and Smelter Design.....	2
Min. 45—Principles of Mill and Smelter Design.....	3	Min. 66—Ore Concentration Laboratory....	3
Min. 99—Inspection Trip.....	0	Min. 90—Mining and Metallurgical Reports..	1
Non-technical Elective <sup>2</sup> .....	3	Non-technical Elective <sup>2</sup> .....	3
Total.....	17	Total.....	18

## Curriculum in Municipal and Sanitary Engineering

## FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
Chem. 1a or 1b—Inorganic Chemistry.....	Hours <sup>2</sup> 3 or 4	Chem. 4—Qualitative Analysis.....	Hours <sup>2</sup> 4
G. E. D. 1—Elements of Drafting.....	4	G. E. D. 2—Descriptive Geometry.....	4
Math. 2—Advanced Algebra.....	3	Math. 6—Analytic Geometry.....	5
Math. 4—Trigonometry.....	2	Rhet. 2—Rhetoric and Themes.....	3
Rhet. 1—Rhetoric and Themes.....	3	Phys. Ed. 2—Gymnasium.....	1
Phys. Ed. 1 and 1a—Gymnasium and Hygiene	1	Mil. 2a—Military Drill.....	1 1/2
Mil. 1a—Military Drill.....	1/2	Mil. 2b—Military Theory.....	1 1/2
Mil. 1b—Military Theory.....	1/2	Engineering Lecture.....	0
Engineering Lecture.....	0		
Total.....	17 or 18	Total.....	18

<sup>1</sup>Students in Metallurgical Option take *First Semester*: Chemistry 7—General Metallurgy, instead of Mining 1; *Second Semester*: Chemistry 5a—Advanced Quantitative Analysis instead of Mining 4 and Mining 6.

<sup>2</sup>Any approved non-technical course. See page 142.

<sup>3</sup>Semester hours. For definition, see page 237.

<sup>4</sup>Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2, may be excused from Rhetoric 1. See page 72.

## SECOND YEAR

C. E. 27—Plane Surveying.....	3	C. E. 28—Higher Surveying.....	3
Language.....	4	Language.....	4
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	4
Phys. 1a—Physics Lectures.....	3	Phys. 1b—Physics Lectures.....	2
Phys. 3a—Physics Laboratory.....	2	Phys. 3b—Physics Laboratory.....	2
Mil. 3a—Military Drill.....	$\frac{1}{2}$	T. and A. M. 20—Analytical Mechanics.....	3
Mil. 3b—Military Theory.....	$\frac{1}{2}$	Mil. 4a—Military Drill.....	$\frac{1}{2}$
		Mil. 4b—Military Theory.....	$\frac{1}{2}$
Total.....	18	Total.....	18

## THIRD YEAR

Bact. 6—Bacteriology.....	$2\frac{1}{2}$	C. E. 52—Roads and Pavements.....	3
Chem. 10b—Water Analysis.....	$2\frac{1}{2}$	C. E. 60—Structural Stresses.....	4
C. E. 53—Railroad Surveying.....	3	C. E. 62—Structural Details.....	2
T. and A. M. 21—Analytical Mechanics.....	2	M. E. 2—Steam Engineering.....	3
T. and A. M. 22—Resistance of Materials.....	5	T. and A. M. 10—Hydraulics.....	3
Non-technical Elective <sup>1</sup> .....	2	Non-technical Elective <sup>1</sup> .....	3
Total.....	17	Total.....	18

## FOURTH YEAR

C. E. 77—Masonry Construction.....	4	C. E. 80—Contracts and Specifications.....	2
C. E. 79—Cement Laboratory.....	1	E. E. 4—Elementary Electrical Engineering.....	2
C. E. 81—Reinforced Concrete.....	2	E. E. 64—Electrical Engineering Lab.....	1
M. E. 61—Power Measurement.....	2	M. and S. E. 3—Sewerage.....	3
M. and S. E. 2—Water Supply Engineering.....	4	M. and S. E. 6b—Water Purification and Sewage Disposal.....	2
M. and S. E. 6a—Water Purification and Sewage Disposal.....	3	M. and S. E. 9—Hydraulic Design and Construction.....	2
M. and S. E. 99—Inspection Trip.....	0	M. and S. E. 98—Thesis or Approved Elective.....	3
Non-technical Elective <sup>1</sup> .....	2	Non-technical Elective <sup>1</sup> .....	2
Total.....	18	Total.....	17

## Curriculum in General Engineering Physics

The object of this curriculum is to fit persons for investigation of general engineering problems calling for a knowledge of physics and mathematics. Students who expect to teach physics and allied subjects in engineering schools will also find this curriculum of interest.

## FIRST YEAR

## FIRST SEMESTER

Hours<sup>2</sup>

Chem. 1a or 1b—Inorganic Chemistry.....	3 or 4
G. E. D. 1—Elements of drafting.....	4
Math. 2—Advanced Algebra.....	3
Math. 4—Trigonometry.....	2
Rhet. 1 <sup>3</sup> —Rhetoric and Themes.....	3
Phys. Ed. 1 and 1a—Gymnasium and Hygiene.....	1
Mil. 1a—Military Drill.....	$\frac{1}{2}$
Mil. 1b—Military Theory.....	$\frac{1}{2}$
Engineering Lecture.....	0
Total.....	17 or 18

## SECOND SEMESTER

Hours<sup>3</sup>

Chem. 4—Inorganic Chemistry.....	4
G. E. D. 2—Descriptive Geometry.....	4
Math. 6—Analytic Geometry.....	5
Rhet. 2—Rhetoric and Themes.....	3
Phys. Ed. 2—Gymnasium.....	1
Mil. 2a—Military Drill.....	$\frac{1}{2}$
Mil. 2b—Military Theory.....	$\frac{1}{2}$
Engineering Lecture.....	0
Total.....	18

## SECOND YEAR

German 1—Elementary German or French 1a.....	4	Math. 9—Integral Calculus.....	3
Math. 7—Differential Calculus.....	5	German 3—Narrative Prose or French.....	4
Chem. 59—Elementary Quantitative Analysis.....	3	Chemistry (Elective).....	3
Phys. 1a—Physics Lectures.....	4	Phys. 1b—Physics Lectures.....	2
Phys. 3a—Physics Laboratory.....	2	Phys. 3b—Physics Laboratory.....	2
Mil. 3a—Military Drill.....	$\frac{1}{2}$	T. and A. M. 20—Analytical Mechanics.....	3
Mil. 3b—Military Theory.....	$\frac{1}{2}$	Mil. 4a—Military Drill.....	$\frac{1}{2}$
		Mil. 4b—Military Theory.....	$\frac{1}{2}$
Total.....	19	Total.....	18

<sup>1</sup> Any approved non-technical course. See page 142.

<sup>2</sup> Semester hours. For definition, see page 237.

<sup>3</sup> Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2, may be excused from Rhetoric 1. See page 72.

## THIRD YEAR

Math. 9a—Advanced Calculus.....	2	Phys. 4b—Electrical Measurements.....	2
Phys. 4a—Electrical Measurements.....	2	Phys. 17—Lighting, or 23—Sound.....	3
Phys. 16—Heat.....	3	M. E. 62—Steam Engines, etc.....	3
E. E. 25—D. C. Theory.....	4	E. E. 26—Alternating Current Theory.....	4
E. E. 75—D. C. Laboratory.....	2	E. E. 76—Alternating Current Laboratory..	2
T. and A. M. 25—Resistance of Materials...	4	Elective <sup>1</sup> .....	3-4
Total.....	17	Total.....	17-18

## FOURTH YEAR

Phys. 14a—Dynamics.....	3	Math. 17—Differential Equations.....	3
Phys. 31a—Special Investigation.....	3	Phys. 24—Properties of Matter or	
Math. 16—Adv. Cal. and Diff. Equations....	3	Phys. 30—Introduction to Theoretical Elec-	
M. E. 11—Thermodynamics.....	3	tricity.....	3
Physics Colloquium.....	0	Phys. 31b—Thesis.....	3
Elective <sup>1</sup> .....	3-5	Chem. 31—Physical Chemistry.....	4
Total.....	15-17	Elective <sup>1</sup> .....	3-4
		Total.....	16-17

## Curriculum in Railway Civil Engineering

## FIRST YEAR

FIRST SEMESTER	Hours <sup>2</sup>	SECOND SEMESTER	Hours <sup>3</sup>
Chem. 1a or 1b—Inorganic Chemistry.....	3 or 4	Chem. 4—Qualitative Analysis.....	4
G. E. D. 1—Elements of Drafting.....	4	G. E. D. 2—Descriptive Geometry.....	4
Math. 2—Advanced Algebra.....	3	Math. 6—Analytic Geometry.....	5
Math. 4—Trigonometry.....	2	Rhet. 2—Rhetoric and Themes.....	3
Rhet. 1 <sup>4</sup> —Rhetoric and Themes.....	3	Phys. Ed. 2—Gymnasium.....	1
Phys. Ed. 1 and 1a—Gymnasium and Hygiene	1	Mil. 2a—Military Drill.....	1/2
Mil. 1a—Military Drill.....	1/2	Mil. 2b—Military Theory.....	1/2
Mil. 1b—Military Theory.....	1/2	Engineering Lecture.....	0
Engineering Lecture.....	0		
Total.....	17 or 18	Total.....	19

## SECOND YEAR

C. E. 27—Surveying.....	3	C. E. 28—Topographical Surveying.....	3
Language.....	4	Language.....	4
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
Phys. 1a—Physics Lectures.....	3	Phys. 1b—Physics Lectures.....	2
Phys. 3a—Physics Laboratory.....	2	Phys. 3b—Physics Laboratory.....	2
Mil. 3a—Military Drill.....	1/2	T. and A. M. 20—Analytical Mechanics....	3
Mil. 3b—Military Theory.....	1/2	Mil. 4a—Military Drill.....	1/2
		Mil. 4b—Military Theory.....	1/2
Total.....	18	Total.....	18

## THIRD YEAR

C. E. 51—Railroad Surveying.....	5	C. E. 60—Structural Stresses.....	4
R. E. 25—Railway Development.....	3	C. E. 62—Structural Details.....	2
T. and A. M. 21—Analytical Mechanics.....	2	R. E. 31—Ry. Yards and Terminals.....	3
T. and A. M. 29—Resistance of Materials...	5	T. and A. M. 10—Hydraulics.....	3
Non-technical Elective <sup>4</sup> .....	3	Non-technical Elective <sup>4</sup> .....	3
		Technical Elective.....	2
Total.....	18	Total.....	17

## FOURTH YEAR

C. E. 77—Masonry Construction.....	4	C. E. 80—Engineering Construction and Speci-	
C. E. 79—Cement Laboratory.....	1	fications.....	2
C. E. 81—Reinforced Concrete Theory.....	2	E. E. 4—Elementary Electrical Engineering..	2
C. E. 83—Bridge Design.....	3	E. E. 64—Electrical Engineering Laboratory..	1
M. E. 1—Steam and Air Machinery.....	3	R. E. 33—Railway Location.....	4
R. E. 32—Railway Construction.....	3	R. E. 51—Seminar.....	1
R. E. 35—Railway Signaling.....	1	R. E. 98—Thesis (or elective).....	3
R. E. 50—Seminar.....	1	Non-technical elective <sup>4</sup> .....	3
R. E. 99—Inspection Trip.....	0		
Total.....	18	Total.....	16

<sup>1</sup>At least nine hours of electives must be non-technical and the number selected should be such as to give a total of 141 semester hours.

<sup>2</sup>Semester hours. For definition, see page 237.

<sup>3</sup>Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2, may be excused from Rhetoric 1. See page 72.

<sup>4</sup>Any approved non-technical course. See page 142.



## Curriculum in Railway Electrical Engineering

## FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
Chem. 1a or 1b—Inorganic Chemistry.....	3 or 4	Chem. 4—Qualitative Analysis.....	4
G. E. D. 1—Elements of Drafting.....	4	G. E. D. 2—Descriptive Geometry.....	4
Math. 2—College Algebra.....	3	Math. 6—Analytic Geometry.....	5
Math. 4—Plane Trigonometry.....	2	Rhet. 2—Rhetoric and Themes.....	3
Rhet. 1 <sup>2</sup> —Rhetoric and Themes.....	3	Phys. Ed. 2—Gymnasium.....	1
Phys. Ed. 1 and 1a—Gymnasium and Hygiene	1	Mil. 2a—Military Drill.....	$\frac{1}{2}$
Mil. 1a—Military Drill.....	$\frac{1}{2}$	Mil. 2b—Military Theory.....	$\frac{1}{2}$
Mil. 1b—Military Theory.....	$\frac{1}{2}$	Engineering Lecture.....	0
Engineering Lecture.....	0		
Total.....	17 or 18	Total.....	18

## SECOND YEAR

	Hours <sup>1</sup>		Hours <sup>1</sup>
Language.....	4	Language.....	4
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
M. E. 77—Foundry Work.....	3	M. E. 75—Forge Work.....	1
Phys. 1a—Physics Lectures.....	3	M. E. 79—Pattern Work.....	2
Phys. 3a—Physics Laboratory.....	2	Phys. 1b—Physics Lectures.....	2
Mil. 3a—Military Drill.....	$\frac{1}{2}$	Phys. 3b—Physics Laboratory.....	2
Mil. 3b—Military Theory.....	$\frac{1}{2}$	T. and A. M. 20—Analytical Mechanics.....	3
		Mil. 4a—Military Drill.....	$\frac{1}{2}$
		Mil. 4b—Military Theory.....	$\frac{1}{2}$
Total.....	18	Total.....	18

## THIRD YEAR

	Hours <sup>1</sup>		Hours <sup>1</sup>
E. E. 25—Direct Current Apparatus.....	4	E. E. 26—Alternating Currents.....	4
E. E. 75—Electrical Laboratory.....	2	E. E. 76—Electrical Laboratory.....	2
M. E. 81—Machine Work.....	3	M. E. 2—Steam Engineering.....	3
Phys. 4a—Electrical and Magnetic Measure-		Phys. 4b—Electrical and Magnetic Measure-	
ments.....	2	ments.....	2
R. E. 25—Railway Development.....	3	R. E. 60—Electric Railway Principles.....	2
T. and A. M. 25—Resistance of Materials....	4	T. and A. M. 36—Analytical Mechanics.....	2
		Non-technical Elective <sup>3</sup> .....	3
Total.....	18	Total.....	18

## FOURTH YEAR

	Hours <sup>1</sup>		Hours <sup>1</sup>
M. E. 11—Thermodynamics.....	3	E. E. 56—Electrical Design.....	4
M. E. 61—Mechanical Laboratory.....	2	R. E. 63—Electric Railway Laboratory.....	2
R. E. 62—Electric Railway Laboratory.....	2	R. E. 65—Electric Railway Economics.....	4
R. E. 64—Electric Railway Practise.....	3	R. E. 98—Thesis (or Elective).....	3
R. E. 66—Electric Railway Machinery.....	3	Non-technical Elective <sup>3</sup> .....	3
R. E. 67—Seminar.....	1		
R. E. 99—Inspection Trip.....	0		
Non-technical Elective <sup>3</sup> .....	3		
Total.....	17	Total.....	16

## Curriculum in Railway Mechanical Engineering

## FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
Chem. 1a or 1b—Inorganic Chemistry.....	3 or 4	Chem. 4—Qualitative Analysis.....	4
G. E. D. 1—Elements of Drafting.....	4	G. E. D. 2—Descriptive Geometry.....	4
Math. 2—Advanced Algebra.....	3	Math. 6—Analytic Geometry.....	5
Math. 4—Trigonometry.....	2	Rhet. 2—Rhetoric and Themes.....	3
Rhet. 1 <sup>2</sup> —Rhetoric and Themes.....	3	Phys. Ed. 2—Gymnasium.....	1
Phys. Ed. 1 and 1a—Gymnasium and Hygiene	1	Mil. 2a—Military Drill.....	$\frac{1}{2}$
Mil. 1a—Military Drill.....	$\frac{1}{2}$	Mil. 2b—Military Theory.....	$\frac{1}{2}$
Mil. 1b—Military Theory.....	$\frac{1}{2}$	Engineering Lecture.....	0
Engineering Lecture.....	0		
Total.....	17 or 18	Total.....	18

<sup>1</sup> Semester hours. For definition, see page 237.<sup>2</sup> Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2, may be excused from Rhetoric 1. See page 72.<sup>3</sup> Any approved non-technical course. See page 142.

## SECOND YEAR

Language.....	4	Language.....	4
Math. 7—Differential Calculus.....	5	M. E. 77—Foundry Work.....	3
M. E. 75—Forge Work.....	1	Math. 9—Integral Calculus.....	3
M. E. 79—Pattern Work.....	2	Phys. 1b—Physics Lectures.....	2
Phys. 1a—Physics Lectures.....	3	Phys. 3b—Physics Laboratory.....	2
Phys. 3a—Physics Laboratory.....	2	T. and A. M. 20—Analytical Mechanics.....	3
Mil. 3a—Military Drill.....	$\frac{1}{2}$	Mil. 4a—Military Drill.....	$\frac{1}{2}$
Mil. 3b—Military Theory.....	$\frac{1}{2}$	Mil. 4b—Military Theory.....	$\frac{1}{2}$
Total.....	18	Total.....	18

## THIRD YEAR

Math. 9a—Integral Calculus.....	2	M. E. 12—Thermodynamics.....	5
M. E. 81—Machine Work.....	3	M. E. 64—Power Measurement.....	3
R. E. 25—Railway Development.....	5	M. E. 82—Machine Work.....	2
T. and A. M. 21—Analytical Mechanics.....	2	R. E. 6—Locomotives.....	4
T. and A. M. 29—Resistance of Materials.....	5	Non-technical Elective <sup>1</sup> .....	3
Non-technical Elective <sup>1</sup> .....	3		
Total.....	18	Total.....	17

## FOURTH YEAR

E. E. 11—Direct Current Apparatus.....	3	E. E. 12—Alternating Current Apparatus....	3
E. E. 61—Direct Current Laboratory.....	1	E. E. 62—Alternating Current Laboratory...	1
M. E. 37—Science of Management.....	3	R. E. 7—Advanced Design.....	3
R. E. 2—Locomotive Design.....	3	R. E. 8—Railway Laboratory.....	2
R. E. 5—Railway Laboratory.....	3	R. E. 61—Electric Traction.....	3
R. E. 9—Seminar.....	1	R. E. 93—Thesis (or Elective).....	3
R. E. 99—Inspection Trip.....	0	Non-technical Elective <sup>1</sup> .....	2
Non-technical Elective <sup>1</sup> .....	3		
Total.....	17	Total.....	17

<sup>1</sup>Any approved non-technical course. See page 142.

# THE COLLEGE OF AGRICULTURE

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For the *buildings* used by this College, see page 52; for a list of its *curriculums*, page 63; for *clubs auxiliary to its curriculums*, page 96; for *honors*, page 84; for *honorary societies*, page 96; for *fees and expenses*, page 105.

## GENERAL STATEMENT

This College offers curriculums to both men and women. The curriculums offered are designed for four distinct purposes:

First, and mainly, to train for the profession of farming.

Second, to train for the teaching of agriculture in the public schools.

Third, to train for the profession of landscape gardening.

Fourth, to train for the profession of floriculture.

The curriculums offered by the department of home economics have two purposes in view:

First, and mainly, to train young women in the science and art of household affairs.

Second, to prepare teachers for giving instruction in domestic science in high schools, and, in connection with the College of Liberal Arts and Sciences, to fit for college and university positions.

In the case of both men and women the great purpose is to prepare for the practical affairs of life. In order that technical knowledge and skill may be developed along with, and not at the expense of, those things which tend to the production of cultured and versatile men and women, the technical work is closely associated with the related sciences, and students are required to divide their time fairly with those subjects that develop general knowledge and breadth of view.

The College offers over one hundred and sixty courses of instruction in technical subjects, besides opportunity to elect from the scientific and literary offerings of the other colleges of the University.

The elective system prevails, and with a few exceptions the student is left free to select those subjects which meet his needs, always under the advice and guidance of the faculty.

Credit is given for all work accomplished; this credit counts toward graduation if the student desires a degree.

## ADMISSION

For the requirements for admission to the College of Agriculture, see the general statement of the entrance requirements of the University, pages 65-81.

## ADMISSION TO GRADUATE WORK IN AGRICULTURE

While in general it will be expected that applicants for admission to the Graduate School shall have had an undergraduate course in scientific and technical agriculture equivalent to that of the University of Illinois, yet students who are otherwise eligible for admission to the Graduate School may be admitted to graduate standing in agriculture if they have had a thoro training in the fundamental sciences, even tho their undergraduate curriculum may have lacked to some extent the amount and kind of technical work included in our course.

## SCHOLARSHIPS IN AGRICULTURE AND HOME ECONOMICS

For detailed information concerning scholarships in agriculture and home economics see page 99.

## **FACILITIES FOR INSTRUCTION AND METHODS OF WORK**

The affiliation of the College with the Agricultural Experiment Station enables the University to support a larger faculty than would otherwise be possible, and permits a higher degree of specialization. For the most part, those who teach in the College conduct experiments in the same subjects in the Station.

The methods of instruction vary with the nature of the courses. In general the laboratory method prevails. Text-books are used when good ones are available. Laboratory and text are supplemented by lectures and reference readings.

## **AGRICULTURAL EXTENSION**

Agricultural extension work serves as the intermediary between the College of Agriculture and the Agricultural Experiment Station and the local community and the farm. Each department does extension work, and so far as possible provides special men for such work. The responsibility for the work of these men lies with their own department. For this reason not all of the extension effort issues from one office.

For administrative purposes and for the coordination of these activities through a regular channel, agricultural extension is administered as a separate department, conducting all extension enterprises which do not deal with technical subjects and cooperating with other departments in diffusing the results of their work in the State.

Some of the general extension enterprises are: Agricultural extension schools and demonstrations in different localities; the two weeks' course given annually at the College in January; helping at farmers' institutes and similar gatherings, with special railway lecture trains, at the boys' state fair school, and in educational exhibits at fairs and elsewhere; welfare work in rural communities; and excursions to the College. (See also under University Extension, Part V.)

Courses of study are offered to assist in determining what phases of agriculture are suitable for secondary school purposes and how they should be taught, and for the discussion of methods of organizing extension activities.

## **AGRONOMY**

The department of agronomy gives instruction in those subjects which relate to the field, as drainage, farm machinery, field crops; the chemistry, physics, and biology of the soil; manures and rotation in their relation to fertility; plant breeding. The department possesses equipment and facilities for instruction in these subjects, and, in addition, affords opportunities for contact with the research work of the Agricultural Experiment Station, especially in crop production, soil fertility, soil biology, and plant breeding, in the analytical and pot-culture laboratories on the soil bins and on the experiment fields at the University and in other parts of the State.

Attention is called to the fact that, if circumstances prohibit a regular four-year curriculum, it is possible for a student who has had sufficient preparatory training to arrange his studies so as to obtain the necessary prerequisites and complete the general courses in soil physics and soil fertility in two years. (See Agronomy 9 and 12.)

## **ANIMAL HUSBANDRY**

The department of animal husbandry offers courses covering the study of sheep, swine, poultry, and beef cattle and their products; heavy and light horses, with their care and training; the management of herds, flocks, and studs; feeding, breeding, and marketing; and the chemical and physiological phases of animal nutrition.

The University herds, flocks, and studs contain about six hundred pure-bred cattle, swine, sheep, and horses, and several hundred fowls, ducks, and turkeys, which are available

for class purposes. These animals are also used for investigations in feeding and breeding, and for illustration of breed types and characteristics. The breeds represented are Short-horn, Hereford, and Aberdeen Angus cattle; Poland-China, Berkshire, Duroc Jersey, Chester White, Tamworth, Large Yorkshire, and Hampshire swine; Shropshire, Oxford, Southdown, Hampshire, Rambouillet, and Dorset sheep; and Percheron, Standard-bred, Shire, Belgian, and American Saddle horses. In addition to this pure-bred live stock, a large number of grade animals of the various classes of live stock furnish material for judging practise. In this practise, standard market classes and grades of live stock are illustrated, and instruction is given in the selection of animals according to feed-lot and market requirements. The stock pavilion offers opportunity for show and judging work. (For detailed description, see page 53.) The lectures of the various courses are supplemented by 1,000 or more lantern slides, charts, diagrams, models, and photographs. Pedigree and breed work is facilitated by 75 sets of the different herd, stud, and flock registers, and complete files of the leading American and British journals.

The equipment for instruction and investigation in the feeding, breeding, and management of live stock consists of modern buildings for the housing of beef cattle, swine, sheep, horses, and poultry, with the appliances necessary for individual and collective feeding tests; brick-paved feed lots and open sheds, in which steers may be fed in carload lots; a feed storage barn, with various forms of grinding mills and other machinery for the preparation of feed; and various kinds of harness, vehicles, and other appliances for the training of horses. The department also maintains a cold-storage room and other equipment for demonstrations in the cutting and handling of meats; a collection of wool samples, and microscopes for the study of wool. The chemistry and physiology laboratories of the department afford facilities for advanced work in animal nutrition.

### DAIRY HUSBANDRY

The department of dairy husbandry furnishes instruction in the production and care of milk and in the manufacture of dairy products.

The various courses cover the application of science to dairy problems, approved methods in dairy operations, and the economic significance of these operations.

In addition to laboratories and lecture rooms, its equipment includes a farm of 160 acres with buildings; about 100 milch cows, bulls, and young stock, including typical representatives of the Ayrshire, Guernsey, Jersey, and Holstein-Friesian breeds; a manufactory with modern equipment for handling city milk and making butter, cheese, ice cream, and bulk condensed milk; and facilities for the distribution of milk on the University milk route.

### HOME ECONOMICS

The courses given in this department are planned to meet the needs of two classes of students, viz.: (a) those specializing in other lines of work, but desiring a knowledge of the general principles and facts of home economics; (b) those who wish to specialize in home economics.

The department is housed in the north wing of the Woman's Building. The kitchen for extension work, with dining room adjoining, is in the basement. The first floor contains two class rooms, a seminar room, an exhibition room for illustrative material for work in house construction and textile fabrics, offices, and cloak rooms. On the second floor are individual, diet, institutional, and class kitchens, small and large dining rooms, chemical laboratory, two large sewing rooms, offices, and store rooms. On this floor provision is made for the study of the preparation and service of food in large quantities in the institutional kitchen and large dining room adjoining. The equipment on this floor provides

practise for those interested in the problems of lunchroom management and for dietitians. The third floor contains additional sewing rooms, offices, equipment for teaching home care of the sick, and an apartment in which the problems of house construction and furnishing and household administration are studied.

## HORTICULTURE

The department of horticulture offers courses in the five divisions of horticulture (pomology, olericulture, floriculture, landscape gardening, and forestry), and also in subjects dealing with all the divisions, such as plant propagation, spraying, the evolution of horticultural plants, and experimental horticulture.

For instruction in pomology, use is made of the fruit plantations maintained by the department. The orchards of different ages afford opportunities for practise in pruning and studies of tree types, while the products furnish materials for practise in the grading and packing of fruits and the study of systematic pomology. A collection of fruit packages illustrates the types used in commercial packing. There is also a collection of wax models of fruits representing the principal varieties grown in Illinois.

For olericulture, or vegetable gardening, certain areas of ground are reserved on which garden operations are illustrated and various crops are grown. The equipment also includes a greenhouse, 105x28 feet, hotbed frames and sash, and an assortment of seed drills, and wheel hoes, hand tools, markers, planters, and other appliances for the growing and handling of vegetables.

The equipment in floriculture includes ten glass houses covering an area of 28,000 square feet, and a service building. Six of the houses, including the palm house, with an area of 3,200 square feet, are used for instructional work exclusively, and the other four, while intended primarily for experimental purposes, add to the facilities for instruction in floriculture as conducted on a commercial basis. Besides roses, carnations, and chrysanthemums, the houses contain a selection of plants representing all the forms used in commercial and decorative or conservatory work. The service building contains laboratories, class rooms, offices, and potting, storage, and work rooms. An assortment of florists' supplies is maintained. Floricultural periodicals, reference books, and a series of over eight hundred slides add to the equipment. The ornamental gardens maintained by the department furnish illustrative materials for students in floriculture and landscape gardening.

The equipment in landscape gardening includes four drafting rooms with desks for individuals, modern filing devices for office practise, seminar rooms, lecture rooms, offices, and a library. The library contains a complete collection of books, periodicals, pamphlets, photographs of examples of foreign and American landscape gardening, and works on civic design, all carefully indexed. There is a collection of representative drawings and blueprints from the offices of practising landscape architects, and one of city maps.

The collection of trees and shrubs growing on the campus and about certain residences near the University furnishes material for plant studies in the courses in planting design. The herbarium of the division is also available for reference. A series of 3,500 lantern slides is used in lectures.

Instruction in forestry is facilitated by a collection of native woods and a forest tree plantation of about twenty acres, containing Scotch pine, white pine, Norway spruce, European larch, green ash, black walnut, hickory, bur oak, white elm, and other species.

## REQUIREMENTS FOR GRADUATION

Students who have satisfied the University requirements as to registration and residence and have maintained throughout their course a satisfactory record of scholarship and moral

character will be graduated with the degree of Bachelor of Science, on completion of the studies of the prescribed list and sufficient electives to make a total of 130 semester hours.

A thesis is not required for graduation, but any student who has completed not less than 90 hours of credit before the senior year may then elect a thesis course in any department provided he has done not less than 20 hours' work in courses pertinent to the thesis problem, subject to the approval of the head of the department.

Graduates of approved colleges may expect to secure a degree in agriculture from the University on completion of the technical and scientific requirements. This will ordinarily require approximately two years of residence work; a minimum of one year is required.

In physical education not more than five semester hours for men and seven semester hours for women are accepted toward graduation.

## GENERAL CURRICULUM IN AGRICULTURE

### *Required for the Degree of Bachelor of Science in Agriculture*

All students except those in the special curriculums in home economics, floriculture, and landscape gardening are required to take the same work during the freshman year and part of the sophomore year. This work gives the student a correct conception of the fundamental farm practices and an insight into the technical branches of agriculture, such as animal and dairy husbandry, horticulture, farm crops, soils, farm mechanics, and buildings, and leaves the junior and senior years open for elective studies.

One hundred thirty hours are required for graduation, as follows:

Agriculture prescribed first two years.....	19 hours	
Agriculture prescribed as electives.....	40 hours	
Total agriculture required.....		59 hours
Non-agriculture prescribed.....	41 hours	
Non-agriculture prescribed as electives.....	15 hours	
Total non-agriculture required.....		56 hours
Open electives.....		15 hours
		<hr/> 130 hours

FIRST SEMESTER		FIRST YEAR		SECOND SEMESTER	
	Hours <sup>1</sup>				Hours <sup>1</sup>
Agron. 25—Farm Crops.....	4	Agron. 25—Farm Crops.....		Agron. 25—Farm Crops.....	4
Chem. 1—Inorganic Chemistry.....	5	or		A. H. 5—Live Stock Judging.....	3
or				D. H. 3—Elements of Dairy Husbandry.....	1
A. H. 5—Live Stock Judging.....	3	and		Chem. 2a—Inorganic Chemistry and Qual-	
D. H. 3—Elements of Dairy Husbandry.....	1			itative Analysis.....	5
Chem. 1a—Inorganic Chemistry.....	3			Hort. 1b—Elements of Horticulture.....	2
and				Rhet. 2—Rhetoric and Themes.....	3
Ag. Ext. 4—Elementary Agricultural Extension	1			Phys. Ed. 2—Gymnasium.....	1
Hort. 1a—Elements of Horticulture.....	2			Mil. 2a—Military Drill.....	1½
Rhet. 1—Rhetoric and Themes.....	3			Mil. 2b—Military Theory.....	1½
Phys. Ed. 1 and 1a—Gymnasium and Hygiene	1				
Mil. 1a—Military Drill.....	1½				
Mil. 1b—Military Theory.....	1½				
Total.....	15-17			Total.....	16

<sup>1</sup>Semester hours. For definition, see page 237.

<sup>2</sup>Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2, may be excused from Rhetoric 1. See page 72.

## SECOND YEAR

A. H. 8 and 21—Principles of Breeding and Feeding.....	3
Botany 1—General Botany.....	5
or	
Agronomy 26—Elementary Farm Mechanics. Chemistry 13a—Elementary Quantitative Analysis.....	3
and	5
Mil. 3a—Military Drill.....	$\frac{1}{2}$
Mil. 3b—Military Theory.....	$\frac{1}{2}$
Electives.....	6-9

Total.....15-18

A. H. 8 and 21—Principles of Breeding and Feeding.....	3
Botany 1—General Botany.....	5
or	
Agronomy 26—Elementary Farm Mechanics. Chemistry 13a—Elementary Quantitative Analysis.....	3
and	5
Mil. 4a—Military Drill.....	$\frac{1}{2}$
Mil. 4b—Military Theory.....	$\frac{1}{2}$
Electives.....	6-9

Total.....15-18

In addition to the prescribed subjects, students will take the following:

Agriculture, electives.....	40 hours
Non-agriculture, electives.....	15 hours
English 20.....	4 hours
Science, elective.....	5 hours
Open electives.....	15 or 17 hours

## CURRICULUM IN FARM ORGANIZATION AND MANAGEMENT

## FIRST YEAR

FIRST SEMESTER	Hours <sup>1</sup>
Agron. 25—Farm Crops.....	4
Chem. 1—Inorganic Chemistry.....	5
or	
A. H. 5—Live Stock Judging.....	3
D. H. 3—Elements of Dairy Husbandry.....	1
Chem. 1a—Inorganic Chemistry.....	3
and	
Ag. Ext. 4—Elementary Agricultural Extension.....	1
Hort. 1a—Elements of Horticulture.....	2
Rhet. 1 <sup>a</sup> —Rhetoric and Themes.....	3
Phys. Ed. 1 and 1a—Gymnasium and Hygiene	1
Mil. 1a—Military Drill.....	$\frac{1}{2}$
Mil. 1b—Military Theory.....	$\frac{1}{2}$
Total.....	15-17

SECOND SEMESTER	Hours <sup>1</sup>
Agron. 25—Farm Crops.....	4
or	
A. H. 5—Live Stock Judging.....	3
D. H. 3—Elements of Dairy Husbandry.....	1
and	
Chem. 2a—Inorganic Chemistry and Qualitative Analysis.....	5
Hort. 1b—Elements of Horticulture.....	2
Rhet. 2—Rhetoric and Themes.....	3
Phys. Ed. 2—Gymnasium.....	1
Mil. 2a—Military Drill.....	$\frac{1}{2}$
Mil. 2b—Military Theory.....	$\frac{1}{2}$
Total.....	16

## SECOND YEAR

Prescribed Subjects	
Chem. 13a—Elementary Qualitative Analysis	5
A. H. 8 and 21—Principles of Breeding and Feeding.....	3
Mil. 3a—Military Drill.....	$\frac{1}{2}$
Mil. 3b—Military Theory.....	$\frac{1}{2}$

Prescribed Subjects	
Agron. 26—Elementary Farm Mechanics....	3
Mil. 4a—Military Drill.....	$\frac{1}{2}$
Mil. 4b—Military Theory.....	$\frac{1}{2}$

In addition to the above courses, the following are also prescribed:

Accountancy 11 or 1.....	3 or 6 hours
Economics 2 or 1.....	3 or 5 hours
Economics 16c.....	3 hours
Economics 26.....	3 hours
Business Law 2.....	3 hours
Elective economics, minimum of.....	9 hours
Farm Management 1.....	3 hours
English 20.....	4 hours
Philosophy 1.....	3 hours
Elective science, minimum of.....	10 hours
Elective agriculture, minimum of.....	28 hours
Open electives.....	13 or 6 hours

Total prescribed.....130 hours

To avoid conflicts with other prescribed work it is suggested that the courses in economics, accountancy, and farm management be taken in the following order:

## SECOND YEAR

Economics 26.....	3	Economics 1 or 2.....	5 or 3
Economics 1 <sup>1</sup> .....	5		

## THIRD YEAR

Accountancy 11 or 1.....	3 or 6	Economics 14.....	2
Economics 23.....	3	Economics 16c.....	3
		Farm Management 1.....	3

## FOURTH YEAR

Economics 15.....	2	Business Law 2.....	3
		Economics 17.....	2

<sup>1</sup>Semester hours. For definition, see page 237.<sup>2</sup>Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2, may be excused from Rhetoric 1. See page 72.<sup>3</sup>Students taking Economics 1 will not take Economics 2.



## CURRICULUM IN FLORICULTURE

*Required for the Degree of Bachelor of Science in Floriculture*

The object of this curriculum is to fit men and women for the profession of floriculture. The laboratory exercises in the technical subjects consist of practical work in the green-houses and gardens and give the students a working knowledge of the best methods now in use.

## FIRST YEAR

FIRST SEMESTER		
<i>Prescribed Subjects</i>		
		Hours <sup>1</sup>
Chem. 1 or 1a—Inorganic Chemistry.....	5 or 3	5 or 3
Hort. 5—Plant Propagation.....	5	5
Rhet. 1 <sup>2</sup> —Rhetoric and Themes.....	5	5
Phys. Ed. 1 and 1a—Gymnasium and Hygiene		1
Mil. 1a—Military Drill.....		$\frac{1}{2}$
Mil. 1b—Military Theory.....		$\frac{1}{2}$
Total.....		13 or 15

SECOND SEMESTER		Hours <sup>1</sup>
<i>Prescribed Subjects</i>		
Chem. 2a—Inorganic Chemistry and Qualitative Analysis.....	5	
Hort. 4—Plant Houses.....	4	
Rhet. 2—Rhetoric and Themes.....	3	
Phys. Ed. 2—Gymnasium.....	1	
Mil. 2a—Military Drill.....	$\frac{1}{2}$	
Mil. 2b—Military Theory.....	$\frac{1}{2}$	
Total.....	14	

## SECOND YEAR

Agron. 9—Soil Physics.....	5
Bot. 1—General Botany.....	5
Eng. 20—Chief English Writers.....	4
Mil. 3a—Military Drill.....	$\frac{1}{2}$
Mil. 3b—Military Theory.....	$\frac{1}{2}$
Total.....	15

Ent. 4—Economic Entomology.....	3
Hort. 15a—Principles of Plant Growing.....	5
Hort. 24a—Trees and Shrubs.....	3
Hort. 31—Garden Flowers.....	3
Mil. 4a—Military Drill.....	$\frac{1}{2}$
Mil. 4b—Military Theory.....	$\frac{1}{2}$
Total.....	15

## THIRD YEAR

Bot. 27a—Plant Physiology.....	5
Hort. 15b—Commercial Crops.....	5
Hort. 24b—Trees and Shrubs.....	3
Total.....	13

Econ. 2—Principles of Economics.....	3
Hort. 7—Spraying.....	3
Hort. 30—Decorative Plants.....	5
Hort. 42—Landscape Design.....	3
Total.....	14

## FOURTH YEAR

Bot. 7a—Plant Pathology.....	5
Hort. 32a—Floral Decoration.....	3
Total.....	8

Hort. 32b—Floral Decoration.....	3
Total.....	3

*Suggested Electives*

Accountancy.....	
Chem. 13a—Elementary Quantitative Analysis.....	5
Economics.....	

*Suggested Electives*

Agron. 12—Soil Fertility.....	5
A. H. 30—Genetics.....	5
Bot. 3a—Plant Anatomy.....	5
Bot. 4a—Taxonomy of Cormophytes.....	5
Bot. 7b—Methods of Study of Fungi.....	5
Hort. 28—Exotics.....	1

## CURRICULUM IN GENERAL HOME ECONOMICS

The work offered in home economics in the College of Agriculture falls into three groups: First, the general course in home economics designed for college women who wish to know the application of home economics to the home; second, the course in interior decoration for those who wish to give special attention to this line; and, third, the course in teacher training under the Smith-Hughes bill for vocational education.

Of the 130 hours required for graduation, 92 are provided for in the prescribed list and the restricted electives of List A. The other 40 hours of credit necessary for graduation may be taken, subject to the approval of the Dean of the College, from any courses offered in the University. Holders of scholarships in home economics in this college take the course as laid out here. Variations from it can be made only by special permission of the Council of Administration on recommendation of the faculty of the College.

<sup>1</sup>Semester hours, for definitions see page 237.

<sup>2</sup>Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2, may be excused from Rhetoric 1. See page 72.

## Prescribed Subjects

*Required for Degree of Bachelor of Science in Home Economics*

Art and Design 1, 12, 19, 20.....	9 hours
Bacteriology 5.....	5 hours
Botany 1 or Zoology 1.....	5 hours
Chemistry 1 or 1a, 2a.....	8 or 10 hours
Economics 2.....	3 hours
English 1, 2.....	8 hours
Home Economics 1, 2, 3, 5, 6, 7, 12, 13, 19.....	25 hours
History 1a-1b, or 3a-3b.....	6 or 8 hours
Physiology 4a or 4b.....	5 hours
Physical Education 7a-7b, 9.....	3 hours
Rhetoric 1, 2.....	6 hours
English or Rhetoric.....	5 hours
List A, a minimum of.....	4 hours

Total required hours.....92 to 96 hours

Electives.....38 to 34 hours

Total.....130 hours

## Electives

List A—English 12, 13, 21, 22, 23, 24  
 Horticulture 1a, 1b, 2, 3, 5, 10a, 19, 28  
 Home Economics 11, 14, 17, 18  
 Economics 22, 26  
 Sociology 1  
 Physics 7a, 8a  
 Education 1, 6, 10  
 Agronomy 7, 9, 12, 25, 26  
 Animal Husbandry 10, 5  
 Dairy Husbandry 1, 3, 4, 11, 13  
 Agricultural Extension 1, 3, 4

## Suggested Curriculum

## FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
A. and D. 1—Freehand Drawing.....	3	Chem. 2a—Inorg. Chem. and Qual. Anal.....	5
Chem. 1 or 1a <sup>2</sup> —Inorganic Chemistry.....	5 or 3	Econ. 22—Economic History of the U. S.....	3
Home Econ. 2—Home Arch. and Sanitation..	2	Home Econ. 1 <sup>3</sup> —Sel. and Prep. of Food.....	3
Rhet. 1 <sup>4</sup> —Rhetoric and Themes.....	3	Home Econ. 7—Textiles.....	2
Lib. Sci. 12—General Reference.....	2	Rhet. 2—Rhetoric and Themes.....	3
Phys. Ed. 7a—Gymnasium Practise.....	1	Phys. Ed. 7b—Gymnasium.....	1
Phys. Ed. 9—Hygiene.....	1		
Total.....	17 or 15	Total.....	17

## SECOND YEAR

	Hours		Hours
Bot. or Zool. 1—Introductory Course.....	5	A. and D. 12—Applied Design.....	2
Eng. 1—Survey of Eng. Lit.....	5	Econ. 2—Principles of Economics.....	3
Home Econ. 6—Econ. uses of Food.....	4	Eng. 2—Survey of Eng. Lit.....	4
Econ. 26—Economic Resources or		Physiol. 4—Minor Course.....	5
Hort. 19—Amateur Floriculture.....	3		
Total.....	16	Total.....	14

## THIRD YEAR

	Hours		Hours
A. and D. 19—History of Fine Arts.....	2	A. and D. 20—History of Fine Arts.....	2
Eng. 23—Intro. to Shakespeare.....	3	Bact. 5—Intro. Bacteriology.....	5
Hist. 1a—Continental European History,		Hist. 1b—Continental European History,.....	
or		or	
Hist. 3a—History of the U. S.....	4 or 3	Hist. 3b—History of the U. S.....	4 or 3
Home Econ. 5—Dietetics.....	3	Home Econ. 3—Home Decoration.....	3
Home Econ. 19—Dress Design.....	3	Home Econ. 12—Clothing.....	2
Total.....	15 or 14	Total.....	16 or 15

<sup>1</sup>Semester hours. For definition, see page 237.

<sup>2</sup>If Chemistry 1a is taken, a 2-hour elective must be added, with the approval of the adviser.

<sup>3</sup>Attention is called to the fact that high-school physics is a prerequisite for Home Economics 1.

<sup>4</sup>Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2, may be excused from Rhetoric 1. See page 72.

## FOURTH YEAR

Educ. 1—Intro. to Education.....	4	Educ. 10—Technics of Teaching.....	3
Home Econ. 13—Hist. of Home Economics..	2	Home Econ. 9—Problems in Extension.....	3
Home Econ. 15—Economics of the Family...	3	Home Econ. 10—Home Management.....	2
Sociol. 1—Principles of Sociology.....	3	Home Econ. 11—Teachers' Course.....	3
		Home Econ. 17—Study of Textiles.....	3
		Home Econ. 28—Organization of the Household.....	3
Total.....	12	Total.....	17

## CURRICULUM IN INTERIOR DECORATION

*Required for Degree of Bachelor of Science in Home Economics*

Of the 130 hours required for graduation, 97 are provided for in the curriculum. The other 33 hours of credit necessary for graduation may be taken, subject to the approval of the Dean of the College, from any courses offered in the University, for which the student may have the prerequisites.

## FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
Arch. 31—Architecture and Freehand Drawing.....	4	Arch. 32—Architecture and Freehand Drawing.....	4
Home Econ. 2—Home Architecture and Sanitation.....	2	G. E. D. 2—Descriptive Geometry.....	4
Math. 2—Advanced Algebra.....	3	Rhet. 2—Rhetoric and Themes.....	3
Math. 4—Trigonometry.....	2	Phys. Ed. 7b—Gymnasium.....	1
Rhet. 1—Rhetoric and Themes.....	3		
Phys. Ed. 7a—Gymnasium.....	1		
Phys. Ed. 9—Hygiene.....	1		
Total.....	16	Total.....	12

## SECOND YEAR

Arch. 13—History of Architecture.....	2	Arch. 14—History of Architecture.....	2
Arch. 23—Freehand Drawing.....	2	Arch. 24—Freehand Drawing.....	2
Arch. 33—Architectural Design.....	3	Arch. 34—Architectural Design.....	3
Arch. Eng. 43—Working Drawings.....	2	Arch. Eng. 44—Working Drawings.....	2
French or German.....	4	French or German.....	4
Total.....	13	Total.....	13

## THIRD YEAR

Arch. 15—History of Architecture.....	2	Arch. 16—History of Architecture.....	2
Home Econ. 22—Theory of Color.....	3	Home Econ. 23—Theory of Color.....	3
Home Econ. 7—Textiles.....	2	Home Econ. 3—Elementary Home Decoration	3
Home Econ. 21—Weaving.....	1	Home Econ. 17—Problems in the Study of Textiles.....	3
Hort. 21a—Landscape Design.....	4	Hort. 21b—Landscape Design.....	4
Total.....	12	Total.....	15

## FOURTH YEAR

Arch. 67—Theory of Form and Color.....	2	E. E. 92—Lighting and Wiring.....	2
Home Econ. 24—Color Application (Freehand).....	2	Home Econ. 25—Color Application (Freehand)	2
Home Econ. 26—Floor and Wall Covering... ..	3	Home Econ. 27—Furniture, brasses.....	3
A. and D. 19—History of Sculpture and Painting.....	2		
Total.....	9	Total.....	7

<sup>1</sup>Semester hours. For definition, see page 237.

<sup>2</sup>Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2, may be excused from Rhetoric 1. See page 72.

## CURRICULUM IN TEACHER TRAINING (SMITH-HUGHES)

Of the 130 hours required for graduation, 117 are provided for in the prescribed list. The other 13 hours necessary for graduation are to be taken from the electives listed below.

## Prescribed Subjects

*Required for the Degree of Bachelor of Science in Home Economics*

Art and Design 1, 12, 19.....	7 hours
Bacteriology 5.....	5 hours
Botany 1 or Zoology 1.....	5 hours
Chemistry 1 or 1a, 2a, 9, 9c.....	13 or 15 hours
Economics 2.....	3 hours
Education 1, 10, 41b.....	10 hours
English 1, 2.....	8 hours
Home Economics 1, 2, 3, 5, 6, 7, 10, 11, 13, 14, 15, 29, 30, 31, 32.....	41 hours
History 1a or 3a.....	3 or 4 hours
Library Science 12.....	2 hours
Physiology 4.....	5 hours
Physical Education 7a, 7b, 9.....	3 hours
Psychology 1.....	3 hours
Rhetoric 1, 2.....	6 hours
Sociology 1.....	3 hours

Total required hours..... 117 to 120 hours

Electives from list below..... 13 to 10 hours

Total..... 130 hours

## Electives (13 to 10 hours required)

Art and Design 20  
Economics 26  
Home Economics 17, 18, 21, 28

## Suggested Curriculum

## FIRST YEAR

FIRST SEMESTER	Hours <sup>1</sup>	SECOND SEMESTER	Hours <sup>1</sup>
A. & D. 1—Freehand Drawing.....	3	A. & D. 12—Applied Design.....	2
Chem. 1 or 1a—Inorganic Chemistry.....	5 or 3	Chem. 2a—Inorganic Chemistry and Qualitative Analysis.....	5
Home Econ. 2—Home Arch. and Sanitation.....	2	Home Econ. 17—Selection and Preparation of Foods.....	3
Lib. Sci. 12—General Reference.....	2	Home Econ. 7—Textiles.....	2
Phys. Ed. 7a—Practise.....	1	Phys. Ed. 7b—Practise.....	1
Phys. Ed. 9—Hygiene.....	1	Rhet. 21—Rhetoric and Themes.....	3
Rhet. 17—Rhetoric and Themes.....	3		
Total.....	17 or 15	Total.....	16

## SECOND YEAR

Bot. 1—General Botany or		Chem. 9 and 9c—Elementary Organic Chemistry.....	5
Zool. 1—General Zoology.....	5	Econ. 2—Principles of Economics.....	3
Eng. 1—Survey of English Literature.....	4	Eng. 2—Survey of English Literature.....	4
Home Econ. 6—Economic Uses of Food.....	4	Home Econ. 30—Designing and Making of Typical Garments.....	3
Home Econ. 29—Garment Making.....	2	Home Econ. 21—Weaving.....	1
Econ. 26—Economic Resources.....	3		
Total.....	18	Total.....	16

## THIRD YEAR

A. & D. 19—History of Fine Arts.....	2	Educ. 1—Introduction to Education.....	4
Hist. 1a—Continental European History or Hist. 3a—History of the United States.....	4 or 3	Home Econ. 3—Home Decoration.....	3
Home Econ. 10—Household Management.....	2	Home Econ. 5—Dietetics.....	3
Home Econ. 32—History of Costume.....	1	Home Econ. 14—Problems in the Preparation and Service of Food.....	3
Physiol. 4—General Physiology.....	5	Home Econ. 31—Clothing.....	3
Psych. 1—Introduction to Psychology.....	3	A. & D. 20—History of Fine Arts.....	2
Total.....	17 or 16	Total.....	18

<sup>1</sup>Semester hours. For definition, see page 237.

<sup>2</sup>Attention is called to the fact that high-school physics is a prerequisite for Home Economics 1.

<sup>3</sup>Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2, may be excused from Rhetoric 1. See page 72.

## FOURTH YEAR

Bact. 5—Elementary Bacteriology.....	5	Educ. 41—Vocational Education.....	3
Educ. 10—Technic of Teaching.....	3	Home Econ. 11—Teachers' Course.....	5
Home Econ. 13—History of Home Economics	2	Sociol. 1—Principles of Sociology.....	3
Home Econ. 15—Economics of the Family	3		
<i>Elective</i>		Home Econ. 17—Chemistry of Textiles.....	3
Home Econ. 18—Lunch Room Management..	5	Home Econ. 28—Organization of the House-	3
		hold.....	
Total.....	18	Total.....	17

## CURRICULUM IN LANDSCAPE GARDENING

*Required for the Degree of Bachelor of Science in Landscape Gardening*

A four years' course in preparation for professional practise of landscape gardening. Courses are open to any student in the University having the prerequisites or their equivalents. Students may petition for the substitution of first or second year French for an equal number of hours of required work on approval of the department.

## FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
<i>Prescribed Subjects</i>		<i>Prescribed Subjects</i>	
Arch. 31—Architectural Drawing.....	4	Arch. 32—Architectural Drawing.....	4
Hort. 5—Plant Propagation.....	5	Bot. 1—Introductory Course.....	5
Hort. 10a—Rural Improvement.....	2	Hort. 10b—Town Improvement.....	2
Rhet. 1 <sup>2</sup> —Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3
Phys. Ed. 1 and 1a—Gymnasium and Hygiene	1	Phys. Ed. 2—Gymnasium.....	1
Mil. 1a—Military Drill.....	1½	Mil. 2a—Military Drill.....	1½
Mil. 1b—Military Theory.....	1½	Mil. 2b—Military Theory.....	1½
Total.....	16	Total.....	16

## SECOND YEAR

<i>Prescribed Subjects</i>		<i>Prescribed Subjects</i>	
Bot. 4d—Taxonomy.....	3	C. E. 32—Surveying.....	3
C. E. 31—Surveying.....	3	Hort. 21b—Landscape Design.....	4
Hort. 21a—Landscape Design.....	4	Hort. 24a—Trees and Shrubs.....	3
Mil. 3a—Military Drill.....	1½	Hort. 31—Garden Flowers.....	3
Mil. 3b—Military Theory.....	1½	Mil. 4a—Military Drill.....	1½
		Mil. 4b—Military Theory.....	1½
Total.....	11	Total.....	14
<i>Electives</i>		<i>Electives</i>	
A. and D. 12—Theory and Practise.....	2	Arch. 14—History of Architecture.....	2
Arch. 13—History of Architecture.....	2	Ent. 4b—Introductory Economic Entomology	3
A. and D. 10—Sketching.....	1	Geol. 12—Geology of Soils.....	5
		Hort. 2—Small Fruits.....	3
		Zool. 16—Field Ornithology.....	2

## THIRD YEAR

<i>Prescribed Subjects</i>		<i>Prescribed Subjects</i>	
Hort. 23a—Landscape Design.....	4	Hort. 23b—Landscape Design.....	4
Hort. 24b—Trees and Shrubs.....	3	Hort. 26a—Planting Design.....	3
Hort. 27a—Landscape Construction.....	3	Hort. 27b—Landscape Construction.....	3
		Hort. 36—Landscape History.....	2
		Hort. 41—Civic Design (Elementary Course)	1
Total.....	10	Total.....	13
<i>Electives</i>		<i>Electives</i>	
Arch. 15—History of Architecture.....	2	Arch. 16—History of Architecture.....	2
A. and D. 13—History and Practise.....	2	A. and D. 8—Modeling.....	2
Econ. 2—Principles of Economics.....	2	Bot. 20—Plant Diseases.....	3
Hort. 8—Fruit Culture.....	5	Hort. 7—Spraying.....	3
Hort. 29a—Garden Design.....	3	Hort. 29b—Garden Design.....	3
Pol. Sci. 1—American Government.....	3	Rhet. 17—Advanced Composition.....	3
Sociol. 1—Principles of Sociology.....	3	Sociol. 7—The Rural Community.....	2
		Ent. 20—Insects of the Garden.....	2

<sup>1</sup>Semester hours. For definition, see page 237.

<sup>2</sup>Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2, may be excused from Rhetoric 1. See page 72.

## FOURTH YEAR

*Prescribed Subjects*

C. E. 55—Roads and Pavements.....	2
Hort. 25a—Landscape Design.....	5
Hort. 26b—Planting Design.....	3
Hort. 37a—Civic Design.....	3
Hort. 38a—Office Practise in Landscape Gardening.....	2
Total.....	15

*Electives*

A. and D. 4—Water Color.....	2
Hort. 40a—Trees and Shrubs (Advanced Course).....	3
Pol. Sci. 4—Municipal Government.....	3
Sociol. 10—Population.....	3

*General Electives*

Hort. 19—Amateur Floriculture.....	3
Hort. 39 <sup>1</sup> —Special Lectures.....	1-8
Zool. 1—General Zoology.....	5

*Prescribed Subjects*

Hort. 25b—Landscape Design.....	5
Hort. 28—Exotics.....	1
Hort. 37b—Civic Design.....	3
Hort. 38b—Office Practise in Landscape Gardening.....	2
Total.....	11

*Electives*

Hort. 15a—Plant Growing.....	5
Hort. 40b—Trees and Shrubs (Advanced Course).....	3
Ent. 20—Insects of the Garden.....	2

Chem. 1 or 1a—Inorganic Chemistry.....	5 or 3
Modern Language.....	8
Physics.....	10

## CURRICULUM FOR PROSPECTIVE TEACHERS OF AGRICULTURE

A curriculum is offered for prospective teachers of agriculture. Among the subjects recommended are the following:

Agronomy 2, 9, 12, 25, 26; Animal Husbandry 1a, 2a, 4a, 5, 6, 11a, 11b, 30;<sup>2</sup> Dairy Husbandry 2, 3; Horticulture 1a, 1b, 3, 5, 10a, 19; Agricultural Extension 1, 4-5; Botany 1, 3b; Chemistry 1, 2, 3, 13a; Entomology 4a-4b; Zoology 1; English 20; Rhetoric 1-2, 19; Public Speaking 5-6; Economics 2; Education 1, 6; Library Science 12; Military 1, 2; Physical Education 1, 2, 1a; Foreign language.

For further information concerning this curriculum, address the Dean of the College of Agriculture.

## TWO WEEKS' COURSE IN AGRICULTURE

The Corn Growers' and Stockmen's Convention is held annually at the College of Agriculture the last two weeks in January. In cooperation with the State Council of Defense a War Conference was scheduled for January 20 to 31, 1919, special attention being given to the continuation of the definite program of agricultural production as recommended in 1918. Owing to the prevalence of influenza-pneumonia this convention was postponed.

At the time of this convention the College usually gives instruction for two weeks in subjects of special interest to young men on the farm, such as corn and stock judging, milk and seed testing, soils, etc. A morning session of two hours each day is devoted to the discussion of questions of importance to the farmer. In the afternoon an hour is given to lectures upon topics of general interest. The rest of the day is filled with class work in the subjects mentioned above. Each year about a thousand men who are unable to spend a longer time away from home avail themselves of this opportunity to come in touch with the work of the College.

## SPECIAL WAR COURSES IN AGRICULTURE

1. Farm Tractors.....	Oct. 14, 1918 to Oct. 24, 1918
Repeated every two weeks until.....	Mar. 24, 1919 to Apr. 5, 1919
2. Seed and Grain Inspection.....	Dec. 2, 1918 to Dec. 14, 1918
Repeated.....	Jan. 6, 1919 to Jan. 18, 1919
3. Meats.....	Oct. 14, 1918 to Oct. 26, 1918
Repeated.....	Mar. 3, 1919 to Mar. 15, 1919
4. Poultry Production.....	Oct. 28, 1918 to Nov. 9, 1918
Repeated.....	Feb. 17, 1919 to Mar. 1, 1919

<sup>1</sup> Students taking the professional course are required to register in Horticulture 39 *each semester*.

<sup>2</sup> Students taking the Curriculum for Teachers may take Animal Husbandry 30 for one-half semester and receive 2½ credits therefor.

5. Feeding Farm Animals.....	Nov. 11, 1918 to Nov. 23, 1918
Repeated.....	Feb. 10, 1919 to Feb. 22, 1919
6. Live Stock Markets.....	Oct. 14, 1918 to Nov. 9, 1918
Repeated.....	Feb. 24, 1919 to Mar. 22, 1919
7. Creamery Field Superintendents.....	Oct. 7, 1918 to Oct. 12, 1918
8. Cow Testing Association Supervisors.....	Oct. 14, 1918 to Oct. 26, 1918
Repeated.....	Feb. 3, 1919 to Feb. 15, 1919
9. Dairy Manufactures.....	Oct. 28, 1918 to Nov. 16, 1918
Repeated.....	Feb. 16, 1919 to Mar. 2, 1919
10. Vegetable and Fruit Storage.....	Oct. 21, 1918 to Nov. 2, 1918
11. Next Season's War Gardens.....	Nov. 4, 1918 to Nov. 16, 1918
12. Small Fruit Culture.....	Nov. 18, 1918 to Nov. 30, 1918
13. Spraying.....	Dec. 2, 1918 to Dec. 14, 1918

### ADMISSION TO SHORT COURSES

No entrance examinations are required and any farmer or farmer's son or daughter may enter these courses. It is important that everyone should be here at the opening of the session. On arrival at Champaign or Urbana, application should be made at the University Young Men's Christian Association, where information concerning board and room may be obtained.

# THE GRADUATE SCHOOL

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## THE EXECUTIVE FACULTY

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EDMUND JANES JAMES, PH.D., LL.D., PRESIDENT OF THE UNIVERSITY

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DAVID KINLEY, PH.D., LL.D., *Professor of Economics and Dean*  
ALBERT PRUDEN CARMAN, A.M., D.Sc., *Professor of Physics*  
WERRETT WALLACE CHARTERS, PH.D., *Professor of Education*  
JULIUS GOEBEL, PH.D., *Professor of Germanic Languages*  
GEORGE ALFRED GOODENOUGH, M.E., *Professor of Thermodynamics*  
HARRY ALEXIS HARDING, PH.D., *Professor of Dairy Bacteriology*  
LAURENCE MARCELLUS LARSON, PH.D., *Professor of History*  
HERBERT WINDSOR MUMFORD, B.S., *Professor of Animal Husbandry*  
WILLIAM ALBERT NOYES, PH.D., LL.D., *Professor of Chemistry*  
WILLIAM ABBOTT OLDFATHER, PH.D., *Professor of Classics*  
STUART PRATT SHERMAN, PH.D., *Professor of English*  
ARTHUR NEWELL TALBOT, C.E., *Professor of Municipal and Sanitary Engineering*  
EDGAR JEROME TOWNSEND, PH.D., LL.D., *Professor of Mathematics*  
HENRY BALDWIN WARD, PH.D., *Professor of Zoology*  
CHARLES MAXWELL MCCONN, A.M., *Registrar, Secretary of the Faculty*

## HISTORY AND ORGANIZATION

The University of Illinois offered facilities for advanced study and research in various lines as early as 1872. Organized graduate instruction, however, under the name of the Graduate School, was first undertaken in 1892. In 1894 the administration of the school was vested in the Council of Administration, and the Vice-President of the University became Dean of the School. In 1906 the Graduate School was organized as a separate faculty, consisting of a dean and members of the University faculty assigned to this duty by the President.

By action of the Trustees the teaching faculty of the Graduate School includes all members of the University faculty who give instruction in approved graduate courses. The affairs of the School, however, are in charge of the Executive Faculty appointed each year by the President.

## ADMISSION

Admission to the Graduate School may be granted to graduates of institutions whose requirements for the bachelor's degree are substantially equivalent to those of the University of Illinois, and to applicants from other institutions approved by the Executive Faculty, as hereinafter provided. *Admission to the Graduate School does not, however, imply admission to candidacy for an advanced degree, and gives no right or claim to be so admitted. Such candidacy is determined by the Faculty after the student has demonstrated by his work here, for from two to five months, that he has the ability to do major work of graduate character. A mere accumulation of "credits" or "grades" is not sufficient.*

A graduate of an institution meeting the requirements of a standard college, as described below, may be admitted to the Graduate School, provided he satisfies the Dean and the departments concerned that he will be able to proceed to the master's degree in a period not exceeding two years.



For purposes of admission to the Graduate School a *standard college* is one which meets the following requirements:

1. An enrollment of not fewer than one hundred students of college grade, with an average for a series of years of at least twenty-five per cent registered in the junior and senior classes.
2. A graduation requirement of four years (120 semester hours) of collegiate grade.
3. A minimum entrance requirement of 14 units. By the minimum requirement is meant the smallest number of units with which a student may be permitted to begin college work, i. e., the nominal requirement minus the number of units of conditions allowed.
4. A requirement that all entrance conditions must be removed before a student may be permitted to begin a second year of work in the same institution.
5. Not less than eight distinct departments in liberal arts and sciences, with at least one professor giving full time to college work in each department.
6. A minimum educational attainment of all college teachers of academic subjects equivalent to graduation from a college of high grade and graduate work equal to that required for the master's degree at the University of Illinois.
7. A maximum of 16 semester hours per week required of college teachers.
8. A maximum enrollment of 30 students in recitation or laboratory sections.
9. Buildings and equipment of the value of at least \$100,000.
10. A productive endowment sufficient to yield a net annual income of at least \$10,000 available for instructional purposes in the college department (liberal arts and sciences). If the institution offers courses in addition to the usual liberal arts course, it shall have a correspondingly larger income.
11. A library of not less than 10,000 bound volumes in addition to public documents.
12. Laboratory equipment of a value of not less than \$3,000 in physics (\$4,000 if work is offered in advance of one-year course), \$2,500 in chemistry, and \$2,500 in biology.
13. In addition to the foregoing specific requirements, the general standard of the administration and faculty shall be considered.

Admission to graduate courses may be granted only to those who have had the requisite undergraduate work in those courses or departments. But a student of mature age who satisfies the Dean and the department concerned of his ability to pursue graduate work in a given line may be enrolled in particular graduate courses, without reference to a degree, and permitted to carry on such study or investigation under the direction of a department of the University as the department shall recommend and the Dean approve.

Application blanks for admission may be secured from the Registrar of the University. Every applicant must submit with his application for admission an official transcript of his college record.

## REGISTRATION AND PROGRAM OF STUDY

The following regulations concerning registration and program of studies are laid out primarily for first-year students. Second-year and third-year graduate students fill out their programs irrespective of the unit value of courses, according to their needs, under the advice of their instructors.

*Registration.*—Each graduate student must register when he first connects himself with the University, and afterwards at the beginning of each semester.

The registration of a new student may be accepted at any time provided the student is prepared to take up courses actually under way. Credit towards the fulfillment of the residence requirement dates, however, from the time of registration and not from the beginning of the semester or year in which the student enters. Registration will not be permitted later in the year than April 1, except in the case of students who expect to continue through the summer session, or are returning to complete a year's work which has been broken into by illness or other unavoidable interruption.

The first registration, or that on entrance, is permitted only after the student's application for admission to the Graduate School, setting forth his educational attainments, has been duly approved.

*Advisers.*—The person in charge of the major work of the student becomes his adviser, and, together with those with whom the student is taking first and second minor courses, forms a committee with general supervision over the student's general course of study. This committee is expected to follow the student's work, to assist him in planning his course and to give him such advice as may be necessary concerning his scholastic career.

*Transfer of Undergraduate Credit.*—No credit earned during the undergraduate course may be transferred for graduate credit, unless such credit was earned in time additional to the time normally required for the bachelor's degree, in the second semester of senior year, and then only for minor subjects, and on petition.

If at the end of the first semester of his senior year a student has so far completed his work for the bachelor's degree that his program for the second semester is not full, he may elect one or more graduate courses. But such election must be in accordance with Graduate School rules and must be approved by the Dean.

*Failures.*—A graduate student who fails in any course in his major subject cannot secure his degree in the same year in which the failure occurred. No condition examinations are given graduate students.

*Students on the Staff.*—Assistants and others on the University staff who undertake to do graduate work are permitted to take an amount of work determined by the terms of their employment. Such a student, if required by his engagements to teach more than five classes a week or to have laboratory work or supervision exceeding ten hours a week, may not receive his master's degree at the end of one year, nor his doctor's degree at the end of three.

The enrollment of a member of the staff is subject to the approval of the officer to whom he is responsible as a member of the staff and of the Dean of the Graduate School with reference to the amount of work to be taken. Before credit may be recorded for such graduate student at the end of a semester, the head of the department in which he is employed, or some one authorized by the head, must certify that the time given to graduate work by the student has not impaired the work for which he is paid by the University.

*Residence and Work Done Elsewhere.*—Continuous residence and study are required of all members of the Graduate School, unless they are granted leave of absence by the Dean, upon recommendation of the professor in charge of their work, for the purpose of carrying on elsewhere studies or investigation in the line of work for their degrees.

Students should note that all the work for the master's degree must be done in residence at the University, excepting in the case of members of the staff who have spent half of their time in study through a year at some other institution, and then do the rest of the work required during a year in residence here. This privilege is extended also to high-school teachers residing and employed in Urbana or Champaign.

Credit for work done elsewhere is not transferred. The candidate is examined here on all the work required for the degree.

*Withdrawal.*—If after registration a graduate student wishes to withdraw from any course or to add other work, he must first secure the necessary papers from the Dean's office. See the regulations concerning changes in study lists, page 11 of the Graduate School Circular. If he wishes to withdraw from the University he must get clearance papers at the Dean's office.

## DEGREES

### Master's Degrees

*Character of Master's Degrees.*—The master's degree conferred depends upon the character of the bachelor's degree. The usual practise is that A.M. shall follow A.B., that M.S.

shall follow B.S. However, this practise may be departed from in cases where the undergraduate course of study of the candidate was of a kind for which some reputable institutions in this country give A.B., while others give B.S. Such departure from the regular practise is permitted, however, only on individual petition duly approved.

*Amount of Work Required.*—Candidates for the degree of Master of Arts or Master of Science are required to do at least one full year's work in residence, including a thesis. By this is meant from four to five unit courses each semester, or their equivalent. A unit course is one which requires ten hours of time a week through one semester, irrespective of the mode of distribution of that time in class work, laboratory work, and private study. Four such courses or their equivalent constitute a full *minimum* program for one semester, and eight such courses, or their equivalent, constitute the *minimum formal* year's work accepted for a master's degree. Only first-rate students are permitted to secure a degree with this minimum program.

Unless otherwise permitted, on individual petition duly approved, every student must take each semester at least one course open to graduate students only (courses numbered 100 and upwards).

In the first year of his graduate study each student is required to attend a minimum of four formal class, lecture, or laboratory exercises a week. In no case is he permitted during his course to attend more than twelve a week, without permission.

*Majors and Minors.*—A candidate for a master's degree may do all his work in one subject, or he may select a major and one minor, or a major and two minors. A major or minor denotes the field of knowledge of a department, or such part thereof as constitutes a separate and independent division of that field. For a master's degree a major is at least half the work, or a minimum of four units, for one year. Less than one unit may not be counted as satisfying the requirements of a minor without the approval of the department concerned.

A program of studies for a first-year graduate student which is limited exclusively to the investigation of a single problem will not be approved.

*Foreign Language.*—The ability to use one or more of the modern languages ordinarily studied in the undergraduate curriculum is expected of all candidates for the master's degree, and in some lines of study is required. On this matter students should consult the heads of the departments in which their major subjects lie.

*Master's Thesis.*—Each candidate for a master's degree is required to present a thesis on some subject approved by the professor in charge of his major work and the Executive Faculty of the Graduate School. The requirement of a thesis may be waived, however, upon the recommendation of the head of the department in which the student is doing his major work and the approval of the Dean, provided application to waive the thesis is made at the beginning of the year. *In no case will permission to take the degree without the thesis be given by the Dean if applied for later than the latest date for the approval of thesis subjects as shown by the calendar.* A student excused from writing a thesis must replace it with additional courses of instruction.

No one will be excused from writing a thesis unless one-half of his program of studies consists of courses numbered 100 and upwards.

The thesis required from a candidate for a master's degree ordinarily will demand one-fourth of the student's time and may not exceed one-third of it. The thesis must be typewritten, on "thesis paper,"<sup>1</sup> and the title page must be printed. The thesis in its final form, together with a certificate of approval by the proper officer, must be left by the professor in charge at the Dean's office at the time set in the calendar. No article prepared for another use, or previously published, will be accepted as a thesis.

<sup>1</sup>No other will be accepted by the Dean. "Instructions for the preparation of theses" may be obtained at the Dean's office.

Under proper conditions a student may be permitted to complete the last fourth of his work, if devoted to his thesis, under leave of absence. To get such permission the student must have secured proper credit for at least six units; must petition for the privilege; must submit to the Dean an outline of the proposed investigation, approved by the head of his major department; and must submit satisfactory evidence that adequate facilities are available to him at the place where he intends to do the proposed work. Approval on all these points must be obtained one collegiate year before the thesis is due.

*Graduate Study in the Summer.*—Graduate students in the summer session are subject to the same scholastic requirements as those in the regular University year. Their study lists must be approved by the Dean of the Graduate School, or his representative. Attendance on four summer sessions of nine weeks each, or one semester and two summer sessions of nine weeks each, is considered the equivalent of one year in residence. If in these sessions the required amount of work is properly done a master's degree may be earned in this way. The faculty is unwilling to accept summer-session work beyond the master's degree towards the doctor's degree, except in the case of a student who works in a summer session preceding or following a regular year's attendance at the University. In no case may the last year's work for the doctorate be done in disconnected summer sessions.

No course offered in the summer session may be taken for credit towards a higher degree unless it is specially described in the summer-session circular as accepted for that purpose.

Graduate students in the regular summer-session period are credited with only 8 weeks towards the fulfillment of the time requirement for the master's degree. It is necessary, therefore, for those who take work through four summer sessions for this degree to complete the residence requirement of thirty-six weeks by taking four additional weeks. This may be done at any summer session by continuing work after the close of the regular session, under the direction of the instructors with whom the student is working. The student is examined on the work thus done as on all other work, and must report his additional work to the Dean.

*Summer Work in Medical Sciences.*—Graduate courses in medical sciences are offered in the summer quarter between June and September at the College of Medicine of the University of Illinois in Chicago. Circulars describing the courses offered and conditions of admission and work may be obtained from the Secretary of the College of Medicine, Congress and Honore Streets, Chicago.

*Marine Biological Laboratories.*—Students in zoology, candidates for the master's degree, part of whose necessary preparation is experience in a marine or fresh-water biological laboratory or station, are permitted to offer, in part fulfillment of the requirements for the master's degree, work done in such fresh-water or marine laboratory; provided that the student who wishes to have such work accepted make application before beginning work in such laboratory; that the selection of the laboratory at which he is to work has been approved by the faculty beforehand; that the time to be spent in such work be not less than six nor more than nine weeks in any one summer; that the instructors under whom the student is to work have been previously accepted by this faculty; that he submit to an examination here on the work done at such laboratory; and that a certificate of attendance from a proper officer of the laboratory or station be submitted and a full written report of the work done in the shape of notes, or otherwise, be required; and that the student shall be in residence here at the University for one full academic year during which he shall do the rest of the work necessary for his degree.

The marine biological laboratories which have thus far been approved as institutions at which students of this University may take work for record here are:

*Marine Stations:*

Marine Biological Laboratory, Woods Hole, Massachusetts

Harpswell Marine Laboratory, Casco Bay, Maine

Puget Sound Station, Friday Harbor, Washington  
Brooklyn Institute Biological Laboratory, Cold Spring Harbor, N. Y.  
Hopkins Marine Laboratory of Stanford University, Pacific Grove, California  
Scripps Institute for Biological Research, University of California, LaJolla, California  
Carnegie Institution Laboratory, Dry Tortugas, Florida  
Bermuda Biological Station, Bermuda

#### *Fresh-Water Stations:*

Douglas Lake Station, University of Michigan, Topinabee, Michigan  
Ohio State University Laboratory, Cedar Point, Ohio  
University of Wisconsin Lake Laboratory, Madison, Wisconsin

Similar arrangements are made, under similar conditions, for students of geology in connection with Geological Surveys.

### Masters' Degrees in Engineering

Two classes of second degrees are open to graduates of the College of Engineering, namely, academic and professional.

The academic second degree in engineering is Master of Science, following Bachelor of Science, in architecture, architectural engineering, civil engineering, electrical engineering, etc. This degree is conferred in accordance with the regulations described above for *academic work in residence only*.

The *professional* second degrees in engineering are as follows:

Master of Architecture, after B. S. in architecture.

Architectural Engineer, after B. S. in architectural engineering.

Civil Engineer, after B. S. in civil engineering, or B. S. in municipal and sanitary engineering, or B. S. in railway civil engineering.

Electrical Engineer, after B. S. in electrical engineering, or B. S. in railway electrical engineering.

Mechanical Engineer, after B. S. in mechanical engineering, or B. S. in railway mechanical engineering.

Engineer of Mines, after B. S. in mining engineering.

Professional degrees are conferred on two classes of candidates: (1) graduates of the College of Engineering of the University of Illinois who have been engaged in acceptable professional work away from the University for a period of not less than three years after receiving the degree of Bachelor of Science; (2) graduates of the University of Illinois, or of institutions of equal standing, who have been engaged in acceptable professional work in residence at the University for a period of not less than three years after receiving the degree of Bachelor of Science.

In "acceptable professional work" may be included contributions to technical literature, activity in professional societies, investigation of engineering problems, and the teaching of engineering subjects.

A candidate must declare his candidacy and file with the Dean of the College of Engineering, as chairman of the committee in charge, a detailed statement covering his professional study and experience, not later than the first Monday in November preceding the commencement at which he proposes to qualify. Prior to December 31 next succeeding, he must submit for approval an outline of his proposed thesis and he must file his completed thesis not later than April 1. If the statement of professional experience and study and the thesis are accepted, the candidate must present himself at commencement in order to receive the degree.

Candidates for professional engineering degrees who already hold the degree of Master of Science may qualify for the professional degree after two years of professional work.

A candidate for a professional engineering degree must pay the incidental fee of thirty dollars on being notified that his professional study and experience are accepted as qualifying him to enter as a candidate for the degree. No one will be enrolled as a candidate for the degree at the following commencement who does not pay his fee at this time. When a candidate for a professional engineering degree has once been accepted and paid his fee, he is eligible to receive the degree at any time within five years, without additional fee, on completion of the requirements; provided, however, that unless he completes the requirements within two years his name will be dropped from the list of candidates and in order to receive the degree within the five-year period he must register once more.

### The Degree of Doctor of Philosophy

*Majors and Minors.*—The requirements for the degree of Doctor of Philosophy are a thoro mastery of a selected field of study, evidence of the power of independent investigation in this field, a broad knowledge of the wider field of study of which this major subject is a part, a general acquaintance with related fields of knowledge, and a mastery of all branches of study which are necessary to a full knowledge of the main subject. Each student who is seeking this degree is expected to choose for study and final examination a major subject, or field of study, and a first and second minor. The major subject is the field in which the student expects to become expert and an authority. The first minor must be a subject closely related to the major and may, under certain conditions and with proper approval, be a subdivision of the major field of study. The second minor should be chosen outside of the major field of study, and must be so chosen by a candidate who elects a division of his major field for his first minor.

*Period of Study.*—The *minimum* period of study required for securing the degree of Doctor of Philosophy is three years, during which the student is required to devote all his working time to his studies. All three years must be spent in residence at some accredited educational institution and either the first two or the last one of the three must be spent at the University of Illinois. The degree is conferred, however, not for residence during a certain period, but for scholarly attainments and power of investigation, as proved by thesis and examinations.

Credit for work done in other universities is not "transferred." The candidate is examined here on the subjects offered by him for the advanced degree. However, his period of residence at another institution of proper grade may be accepted in fulfillment of the residence requirement of the University of Illinois, so far as it goes.

*Preliminary Examination.*—Towards the end of his second year of study, or, by special permission, at the beginning of his third year, the candidate for the degree must submit to a preliminary examination, in order to determine whether he will be accepted as a candidate for the degree in the following year. This examination is intended to test the student's knowledge of the fields of his major and minor subjects of study. It is partly oral, and may be wholly so.

*Language Examination.*—The candidate will be required to demonstrate his ability to read French and German and other languages needed in his work. The test of proficiency in the use of French and German takes place not later than the time of the preliminary examination for admission to candidacy.

*Final Examination.*—On or before the last Monday in May of the year in which the candidate expects to come up for his degree, he must submit to a final examination, given by a committee appointed by the Dean. This examination is primarily on the research work of the student, as embodied in his thesis, but it is not confined to that. It extends to the whole field of the study of the candidate. It will not be confined to the courses which the candidate has attended in the University of Illinois only, if he has done part of the work elsewhere; nor even to the field covered by the courses specifically taken in

this or other universities; but will be so conducted as to determine whether the candidate has a satisfactory grasp of his major subject as a whole, and a general acquaintance with the fields of knowledge represented by his course of study.

The final examination may not be divided. The examination must be taken all at one time even tho it requires several sessions.

*Other Examinations.*—Before the candidate is admitted to the final examination and the defense of his thesis, he may be required to take any other examination, oral or written, that is thought proper by the various departments in which he has studied. If, after having passed his preliminary examination, he fails in the third year of his study to meet the expectations of the professors in charge of his work, or in any way fails to maintain the standard of scholarship and power of research expected of him, he may be refused admission to the final examination.

The above examinations are in addition to those in the courses for which the student is registered. These must be taken at the times for which they are set in the examination schedule.

No candidate who does not secure a record of B or higher in at least three-fourths of his work will be recommended for the degree.

*Thesis.*—The power of independent research must be shown by the production of a thesis on some topic connected with the major subject of study. The candidate is expected to defend his thesis or dissertation before the members of the faculty, or as many of them as may wish to question him about it, in connection with his final examination.

The doctor's thesis must be printed and one hundred copies deposited in the Library of the University by the candidate, not later than the first of June preceding the conferring of the degree. In form, the printed thesis must follow the "instructions for the preparation of masters' and doctors' theses," copies of which may be obtained at the Dean's office on application. If it is not printed by the first of June, the student must, not later than that date, deposit seventy-five dollars (\$75) or a bond for that amount satisfactory to the Comptroller of the University and the Dean of the Graduate School. A member of the faculty of the University of Illinois will not be accepted as a guarantor on such a bond. If a bond is accepted, it must be replaced at the end of one year with a cash deposit. At the end of two years, if the thesis has not then been printed by the student, the University will print it or such part of it as is deemed best.

The cash deposit made by the student who does not print his thesis by the end of the second year after his degree is conferred becomes the property of the University, to be used for the general purpose of printing theses.

*Doctor's Degree in Engineering.*—The degree of Doctor of Philosophy in Engineering is offered in certain lines of academic work of a high scholastic type in engineering science for students who wish to prepare themselves as teachers, investigators, and experts.

The general requirements for this degree, as to preliminary education, linguistic attainments, etc., are the same as in other lines.

The following lines of engineering science are open as majors:

Engineering mechanics

Steam engineering

Hydraulic and sanitary engineering

Electrical engineering

Heating and ventilation engineering

Railway engineering

Masonry construction and structural engineering

Coal-mining engineering

The first minor may be any of the above or one of the following fundamental sciences or an authorized combination of two of them:

Theoretical mechanics

Mathematics

Thermodynamics

Chemistry

Geology

Physics (experimental or mathematical)

Zoology

Botany

The second minor should be in other than engineering subjects.

### SCHOLARSHIPS AND FELLOWSHIPS

A number of scholarships and fellowships have been established by the Trustees of the University. To first-year graduate students of ability and promise there are open a number of scholarships with a stipend of \$250 each and freedom from tuition, incidental, and laboratory fees. To second-year and third-year graduate students, that is, those who have had one or two years of graduate study, there are open fellowships with a stipend varying from \$300 to \$500, with freedom from the above-mentioned fees. The larger stipends are given only to students who are expected to take their degrees within the year. Each holder of a fellowship or scholarship must pay the matriculation fee of ten dollars, unless he holds a first degree from the University of Illinois, and also the diploma fee of five dollars on receiving his diploma.

Candidates for these scholarships and fellowships must be graduates of the University of Illinois or of colleges or universities having equivalent requirements for bachelors' degrees.

Application must be made on blanks to be obtained from the Dean of the Graduate School. These application forms should be sent to the Dean of the Graduate School as early as possible in February of the academic year preceding that for which the fellowship is desired. No application will be considered if received later than March first, until after April fifteenth, the date when appointees from the first list of applicants must accept or refuse their appointments.

Persons appointed are notified on April first and must send the Secretary of the Board of Trustees notice of their acceptance or refusal by April fifteenth; and must agree that, if accepted, the appointment will not be resigned to take a similar one in any other institution during the year for which it is awarded.

Nominations to fellowships are made on the grounds of worthiness of character, scholastic attainments, and promise of success in the principal line of study or research to which the candidate proposes to devote himself. Scholarships and fellowships are not given to candidates who are over thirty years of age at the time when the appointment is to be made.

For second-year fellowships, adequate preparation in French, and for third-year fellowships, adequate preparation in French and German is required.

An appointment as honorary fellow, without stipend, may be made as specified for paid fellowships in the case of any one who has shown distinguished merit in his work.

### Research Graduate Assistants in the Engineering Experiment Station

The Engineering Experiment Station is devoted entirely to research. Its purposes are the study of problems of special importance to engineers and to manufacturing, railway, mining, and industrial interests, and the stimulation and elevation of engineering education.

Fourteen research graduate assistantships have been established in the Engineering Experiment Station. These graduate assistantships are open to graduates of approved



technical schools and universities. There is a stipend of \$500 a year for each. Applicants to whom these graduate assistantships are awarded are required to agree to hold them for two years, devoting one-half of their time to the work of the Engineering Experiment Station. At the expiration of this period, if all requirements have been met, the degree of Master of Science will be conferred.

Applications for these graduate assistantships should be made to the Director of the Engineering Experiment Station not later than February first. Candidates must present with their applications full information concerning themselves, including any written or published papers or results of investigation.

### THE GRADUATE CLUB

The Graduate Club is an unofficial organization of the graduate students and graduate faculty. Its purpose is to furnish an opportunity for those working in different departments to become acquainted with one another and thus counteract the tendency toward narrowness which intense specialization may sometimes induce.

### THE ILLINOIS HISTORICAL SURVEY

The Illinois Historical Survey is a department of the Graduate School established in 1910 to conduct research in the history of the State of Illinois. The members of the staff, assisted by graduate students, are engaged in the production of scientific studies in Illinois history, and it is expected that the results of these labors will lay a solid basis for the interpretation of the State's past.

The following persons constitute the staff of the Survey for the year 1918-19: Clarence W. Alvord, Ph.D., Professor of History, Director; Ernest L. Bogart, Ph.D., Professor of Economics; John M. Mathews, Ph.D., Associate Professor of Political Science; C. M. Thompson, Ph.D., Associate Professor of Economics; Arthur C. Cole, Ph.D., Assistant Professor of History; Anita Libman, Research Assistant.

### GRADUATE WORK IN THE SUMMER SESSION

The Summer Session places emphasis on graduate courses leading to the master's degree. The departments related to high-school teaching and to educational administration have been selected as the centers of this emphasis. An attempt is made to vary the graduate offerings from year to year so that advanced students each year may find acceptable work in their chosen fields.

The normal requirement for the master's degree is full work of graduate grade, satisfactorily completed, through one year of residence. This means a residence of thirty-six weeks at the University. Qualified graduate students may fulfill this residence requirement in four summer sessions of eight weeks each and an additional four weeks' study at the University under the direction of the person in charge of the major work. Thus a student, by working at the University for one week before or after each session under the direction of the professor in charge of his major subject, may earn the master's degree in four summers.

In certain cases it will be possible for the graduate student to complete the last fourth of his residence requirement under a leave of absence. This privilege may be granted in the event that the student is able to take advantage of opportunities for research and investigation that are not afforded in the University community. Superintendents, principals, and class-room teachers frequently find it possible to carry on investigations in connection with their school work. There are, for example, numerous problems of school administration and of teaching for which the public school itself forms the only available "laboratory." Where the investigation of such problems is prosecuted with the cooperation of a department of the University, it may be possible to count the work toward the master's degree.

# THE LIBRARY SCHOOL

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For a description of the *Library Building*, see page 54; for an account of the *libraries* themselves, see page 57; for the *collection in library economy* see page 61; for *fees*, see page 105.

## GENERAL STATEMENT

The Library School offers a two-year curriculum to the students who wish to enter librarianship as a profession, and certain library courses to students in other schools and colleges of the University who may wish to elect them as a part of their course of training. The instruction in the first or junior year covers the generally accepted methods and practises in library work; students who complete this year's work are prepared to accept positions in library service. In the second or senior year emphasis is placed on historical and comparative methods of treatment; new subjects are introduced to give the student the necessary outlook and equipment for more responsible positions.

One or two years' training will not take the place of years of experience, but they will make the student more adaptable and his general library service more intelligent. The time spent in actual practise, under supervision, amounts to about three and one-half months, counting seven hours to a working day. Altho stress is laid on simplicity and economy, methods are taught to enable students to work in large libraries where bibliographic exactness is required. Emphasis is laid on the extension of the activities of the public library, and on the importance of cooperation between the library and the schools and other educational and social agencies.

A member of the senior class in any other school or college of the University may, with the approval of the Director of the Library School, elect any course for which he is prepared.

The school also offers to freshmen and sophomores a course on the use of the University library and the ordinary reference books.

## ENTRANCE REQUIREMENTS

Admission to the Library School is conditioned on the presentation of credentials showing that the applicant holds a bachelor's degree in arts or science from the University of Illinois or has had other equivalent training. No entrance examinations are required.

Application blanks for admission may be secured from the Director of the School, and these, filled out, should be filed, together with such documentary material as the candidate may offer, showing qualifications for admission, generally not later than August 1. It is to the candidate's interest to present application and certificates early, in order that the question of admission may be settled before he comes to Urbana.

## RECOMMENDED PRELIMINARY CURRICULUM

Undergraduates who intend, on the completion of their college work, to apply for admission to the Library School, are requested to select their courses so as to conform in general to the following recommended program of studies preparatory to library work.

English literature, 10;<sup>1</sup> rhetoric, 6.

Latin, 8, in addition to four years of high-school Latin.

German, 12, in addition to two years of high-school German.

French, 8, in addition to two years of high-school French.

German and French begun in college instead of in the high school should be continued for a longer period.

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<sup>1</sup> The figure after each subject denotes the minimum number of semester hours which the student should devote to that subject.

Medieval and Modern European history, 6; history of England, 6; history of the United States, 6.  
Economics, 6; political science, 4; sociology, 6.  
Philosophy, 4; general psychology, 4.  
Zoology, 6; botany, 4; chemistry or physics, 6.

The total of this work is 102 semester hours, leaving the equivalent of one year of a four-year course free for work in other subjects or for more work in the subjects named

### ADVANCED STANDING

College graduates who have had approved library experience or who have attended other library schools may be accorded advanced standing by securing credit for some of the courses required for graduation. After satisfying all entrance requirements and after matriculation, the applicant for advanced standing may secure such credit either by examination or by transfer of credits from an approved institution offering courses in library economy. (See page 72.)

### SPECIAL STUDENTS

It is the practise of this School to admit as special students only those mature persons who, tho unable to meet the formal requirements for entrance, are prepared for thoro and advanced work. Such persons must present evidence of possessing the information and ability to pursue profitably, as special students, the chosen subjects, and some substitute for the regular requirements for entrance, such as the completion of part of a college course, approved library or teaching experience, or foreign travel. Preference will be given to those already engaged in library work, especially in Illinois libraries. Students thus admitted are expected to take all of the curriculum prescribed for those who are candidates for the degree of Bachelor of Library Science.

### PREPARATION FOR SPECIAL LIBRARIES

For the benefit of students who plan to work in special libraries, a modification of the senior course may be permitted. A student who has satisfactorily completed the work of the junior year may petition for such modification, provided he intends to work in a business, technical, agricultural, or other special library, and provided his undergraduate courses included a sufficient number in the field in which he expects to specialize. In such instances, the faculty may permit the student to substitute for certain of the Library School courses, such electives in the various colleges of the University as will fit the student for special library work in the subject selected.

### LIBRARY VISITS AND FIELD WORK

Each year all the students in the School visit the libraries and certain of the book binderies, book stores, and printing establishments of either Chicago and vicinity or St. Louis and vicinity. During this visit, which occupies one week, the students are accompanied by members of the faculty.

The estimated expense of this visit is about \$22 for each trip. Students are required to present a written report of the week's visit on their return to the University, as the work forms part of Library 22 and Library 26.

In order to assure a varied library experience, each student in the senior year is required to spend one month in an assigned library, usually a public library, working, as far as practicable, under the same conditions as a member of the staff of that library, but without compensation. Written and oral reports of the month of field work are required, as the work forms part of Library 26. The estimated expense for the month of field work is \$45.

**CURRICULUM**

The curriculum is two years in length. For graduation a student must receive credit for all courses except those marked with an asterisk (\*), which are elective. The degree of Bachelor of Library Science is conferred on a student who has completed the required work in the two years' curriculum, and has received credit in courses amounting to 62 semester hours, or 93 quarter hours.

**JUNIOR YEAR**

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
Lib. Sc. 2a—Reference.....	3	Lib. Sc. 2b—Reference.....	3
Lib. Sc. 3a—Selection of Books.....	2	Lib. Sc. 3b—Selection of Books.....	2
Lib. Sc. 16—Order of Accession.....	2	Lib. Sc. 30—Practise.....	3
Lib. Sc. 17—Classification.....	3	Lib. Sc. 7—History of Libraries.....	2
Lib. Sc. 18—Cataloging.....	3	Lib. Sc. 19—Trade Bibliography.....	1
Lib. Sc. 23a—Library Administration.....	1	Lib. Sc. 21—Printing, Binding, Indexing.....	2
Lib. Sc. 20—Loan Department.....	1	Lib. Sc. 22—Library Extension.....	3
		Lib. Sc. 23b—Library Administration.....	1
Total.....	15	Total.....	17

**SENIOR YEAR**

	Hours <sup>1</sup>		Hours <sup>1</sup>
Lib. Sc. 41a—Subject Bibliography.....	1	Lib. Sc. 41b—Subject Bibliography.....	1
*Lib. Sc. 8—Advanced Reference.....	2	Lib. Sc. 9—History of Books.....	2
Lib. Sc. 40a—Practise.....	3	Lib. Sc. 40b—Practise.....	3
Lib. Sc. 13a—Public Documents.....	2	*Lib. Sc. 13b—Public Documents.....	2
Lib. Sc. 15a—Seminar.....	2	Lib. Sc. 15b—Seminar.....	2
Lib. Sc. 24a—Selection of Books.....	2	Lib. Sc. 24b—Selection of Books.....	2
Lib. Sc. 26a—Library Administration.....	3	*Lib. Sc. 29—Advanced Classification.....	2
*Lib. Sc. 27—Bibliographical Institutions....	1	Lib. Sc. 26b—Library Administration.....	3
		*Lib. Sc. 28—Practise.....	1 to 4
Total.....	16	Total.....	18 to 21

**LIBRARY CLUB**

Any member of the Library School faculty or of the staff of the University Library and any student in the Library School may become a member. Six meetings are held each year.

<sup>1</sup>Semester hours. For definition, see page 237.

# THE SCHOOL OF MUSIC

For *admission* to the School of Music, see the general statement of entrance requirements of the University, pages 65-81. For *fees*, see page 105. For the *faculty* of the School of Music and description of the *courses* in music, see under "Music" in the "Description of Courses," Part III.

## GENERAL STATEMENT

The School of Music offers regular courses leading to the degree of Bachelor of Music. Students who are not working for the degree in Music may receive a statement from their instructors on completing not less than one year of college work.

Classes in ear training and sight singing meet twice each week. Music students are required to attend these classes.

Choral or orchestral work is required of all students who are taking courses in piano, voice, violin, or organ.

Students of the School of Music are not allowed to appear in public without the consent of the Director of the School of Music.

All students majoring in a practical subject are required to take Music 94 (Recital) in the junior and senior years.

The instructors in the School of Music give recitals and lectures on musical subjects during the year.

The courses in the history of music and musical theory, as well as the work in the University Orchestra and the University Choral Society, may be taken by students in other departments without fee.

## REQUIREMENTS FOR GRADUATION

Candidates for the degree of Bachelor of Music must offer credit for 130 semester hours, including the prescribed subjects named below, together with an acceptable thesis on a topic related to music.

All music students are expected to attend the concerts and recitals which are given under the auspices of the School of Music.

Public performance being part of the course of study in a practical subject, all students are required to participate in a program when sufficiently prepared.

Students, who by reason of deficient musical ability, inattention, or other valid reason, fail to make satisfactory progress, may be dropped from the classes.

## CURRICULUM IN MUSIC

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
Foreign language, French, German, or Italian	4	Foreign language, French, German, or Italian	4
Mus. 3—Harmony	2	Mus. 4—Harmony	2
Mus. 21a—Ear Training	4	Mus. 21b—Ear Training	4
Mus. 42a, 52a, or 62a—Piano, Voice, or Violin	2	Mus. 42b, 52b, or 62b—Piano, Voice, or Violin	2
Mus. 46a, 56a, or 66a—Minor subject	3	Mus. 46b, 56b, or 66b—Minor subject	3
Rhet. 1 <sup>2</sup> —Rhetoric and Themes	1	Rhet. 2—Rhetoric and Themes	1
Phys. Ed. 7a—Gymnasium (women)	1	Phys. Ed. 7b—Gymnasium (women)	1
Phys. Ed. 9—Hygiene (women)	1	Phys. Ed. 2—Gymnasium (men)	1
Phys. Ed. 1 and 1a—Gymnasium and Hygiene (men)	1 1/2	Mil. 2a—Military Drill (men)	1 1/2
Mil. 1a—Military Drill (men)	1 1/2	Mil. 2b—Military Theory (men)	1 1/2
Mil. 1b—Military Theory	1 1/2		
Total, Men	17	Total, Men	17
Total, Women	17	Total, Women	17

<sup>1</sup>Semester hours. For definition, see page 237.

<sup>2</sup>Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2 may be excused from Rhetoric 1. See page 72.

## SECOND YEAR

Foreign language, French, German, or Italian	4	Foreign language, French, German, or Italian	4
Mus. 1—History of Music	2	Mus. 2—History of Music	2
Mus. 5—Advanced Harmony	3	Mus. 6—Advanced Harmony	3
Mus. 22a—Ear Training	1	Mus. 22b—Ear Training	1
Mus. 23a—Sight Singing		Mus. 23b—Sight Singing	
Mus. 43a, 53a, 63a, or 81—Piano, Voice, Violin, or Organ (Major Subject)	4	Mus. 43b, 53b, 63b, or 85—Piano, Voice, Violin, or Organ (Major Subject)	4
Mus. 46c, 56c, 66c, or 83c—Minor Subject	2	Mus. 46d, 56d, or 66d—Minor Subject	2
Mil. 3a—Military Drill (men)	$\frac{1}{2}$	Mil. 4a—Military Drill	$\frac{1}{2}$
Mil. 3b—Military Theory	$\frac{1}{2}$	Mil. 4b—Military Theory	$\frac{1}{2}$
Total, Men	17	Total, Men	17
Total, Women	16	Total, Women	16

## THIRD YEAR

Educ. 1—Introduction to Education	4	Eng. 2—Survey of English Literature	4
Eng. 1—Survey of English Literature	4	Mus. 8—Counterpoint, Canon, and Fugue	3
Mus. 7—Counterpoint, Canon, and Fugue	3	Mus. 24b—Sight Singing	1
Mus. 24a—Sight Singing	1	Mus. 45b, 55b, or 65b—Piano, Voice, or Violin	4
Mus. 44a, 54a, 64a, or 86—Piano, Voice, Violin, or Organ (Major Subject)	4	Mus. 46f, 56f, or 66f—Minor Subject	2
Mus. 46e, 56e, or 66e—Minor Subject	2	Mus. 94a—Recital	1
		Educ. 10—Technic of Teaching	3
Total	18	Total	18

## FOURTH YEAR

Eng. 23—Introduction to Shakespeare	3	Mus. 10—General Theory	2
Mus. 9—General Theory	2	Mus. 12—Acoustics	1
Mus. 11—Acoustics	1	Mus. 27b—Ensemble	1
Mus. 27a—Ensemble	1	Mus. 45b, 55b, or 65b—Piano, Voice, or Violin	4
Mus. 45a, 55a, or 65a—Piano, Voice, or Violin	4	Mus. 46h, 56h, or 66h—Minor Subject	2
Mus. 46g, 56g, or 66g—Minor Subject	2	Mus. 94b—Recital	1
Total	13	Total	11

*In addition, to make up the prescribed total of 130 hours:* Elective, for men, 1 hour; for women, 4 hours. This extra credit may be taken at any time; the election must be approved by the student's adviser.

Practical courses include regular attendance in orchestra and choral society unless a student is excused by the Director of the School of Music.

## MUSICAL ORGANIZATIONS

*The University Choral and Orchestral Society* is conducted by the Director of the School of Music, with the assistance of the instructor of violin, and gives a series of concerts throughout the year. The orchestra meets for two hours' rehearsal once a week; it is open to all students who qualify for membership. The chorus meets once a week for rehearsal of choral works. Singers not connected with the University are admitted by examination.

*The Military Band* is conducted by the instructor in band instruments. Besides giving several concerts during the year, it furnishes music for regimental formations and ceremonies and other occasions as required by the President of the University. Membership is decided by competitive examinations. A second band is also conducted, in order that all students who play band instruments ordinarily well may have an opportunity to play in a band. Each full term of service in the band counts for one term of the required work in military science. After obtaining credit for four semesters' work those who are continued in the band for not less than one year are paid an amount equal to the incidental fees for the year. There is also a reserve band and trumpet and drum corps.

The University Choristers and the University Women's Glee Club are also under the supervision of the School of Music.

# THE COLLEGE OF EDUCATION

## GENERAL STATEMENT

In June, 1918, the College of Education was organized to supersede the School of Education. During the Session of 1918-19 the Department of Education remains in the College of Liberal Arts and Sciences during the time that the organization of the College of Education is being perfected.

## THE DEPARTMENT OF EDUCATION

The Department of Education includes four full professors, one assistant professor, two lecturers, and several assistants. It offers courses in educational history, theory, and practise—see under Education in the General Description of Courses, Part III. Two of the courses (Education 1 and 10) are required of all students who wish to secure the official recommendation of the University for teaching positions in secondary schools—see "Committee on Appointment of Teachers," page 182. Credits earned in these courses are usually accepted by the State Examining Board in lieu of examination in pedagogy for county teachers' certificates; and these and other courses serve to prepare candidates for the examinations in professional subjects required for the State supervisory and high-school certificates—see "Certification of High School Teachers in Illinois," page 182.

## BUREAU OF EDUCATIONAL RESEARCH

The Bureau of Educational Research is equipped for the following purposes: (a) The investigation of educational problems; (b) state service through the assimilation of information by correspondence with those making inquiry concerning the problems of education; (c) periodical publications; (d) the distribution of all standard educational scales and tests. Its personnel consists at the present of a director, an assistant director, and a clerical force of seven persons, including two library assistants for the classification of educational literature.

## GRADUATE WORK IN EDUCATION

Graduate work in education is offered to qualified students in the following fields: methods of teaching and elementary education (Professor Charters); vocational education (Professor Hill); secondary education (Professors Stevenson and Hollister); educational psychology, including mental tests and clinical psychology (Professor Hill); educational statistics (Professor Buckingham).

The equipment of the department for graduate work comprises: (a) A library of some 20,000 volumes (besides pamphlets), including the Aron Library of 8,000 titles relating largely to European education in the sixteenth, seventeenth, and eighteenth centuries; a collection of documents representing educational development in the United States, including school reports and courses of study and of state and city systems; and a textbook library representing the development of elementary and secondary school texts used in American schools from the beginning of the nineteenth century; (b) a laboratory of educational and clinical psychology equipped for mental and physical tests; (c) a Bureau of Educational Research equipped for studying a wide variety of educational problems.

## PUBLICATIONS OF THE COLLEGE OF EDUCATION

The College of Education publishes a series of bulletins comprising (a) reports of the annual High School Conference, the Conferences on Teachers' Institutes, and other meet-

ings and conferences regarding public education held at the University, (b) reports of investigation and studies by members of the instructional staff and students in the department, and (c) publications of the Bureau of Educational Research.

The department of education is unofficially related through the editorial work of its members to the following journal: *Educational Administration and Supervision* (Baltimore), edited by W. C. Bagley, L. D. Coffman, Alexander Inglis, George D. Strayer, David Snedden, and W. W. Charters.

### COMMITTEE ON APPOINTMENT OF TEACHERS

The Committee on Appointment of Teachers recommends qualified graduates of the University for positions as teachers or supervisors in public schools, colleges, and technical schools in response to requests from the school authorities. The Director of the School of Education is chairman of the Committee, and the Secretary of the School is its chief executive officer.

The recommendations of the Committee are made under the following regulations of the University Senate.

1. The University Committee on Appointments is authorized to issue its recommendation, signed by the Committee as the agent of the University, in all cases in which it is satisfied with the student's scholarship and ability to teach. The Committee shall regard the scholarship requirements as met if, in addition to carrying the professional courses mentioned in the next paragraph, the student has passed with an average grade of B in the courses necessary to constitute a major in the principal subject which he wishes to teach, and in courses aggregating a minimum varying from six to twelve semester hours (according to subject, and at the discretion of the Committee) in each of the other subjects for which he wishes to be recommended. The committee shall, however, in each case secure the written opinion of the departments concerned in regard to the scholarship of the applicant, and shall view the evidence of scholarship as shown by the records in the light of this opinion; and if there appear to the Committee to be reasons which from their nature cannot be shown by mere records for questioning the scholastic ability of the student, the Committee may in its discretion withhold the recommendation.

2. A candidate must have successfully completed the following courses in the department of education:
  - a. An introductory course which shall aim (1) to acquaint the prospective teacher with the public-school system as it exists today in the United States, and (2) to present a brief outline of the principles of education. (A four-hour course.)

- b. A course in the technics of teaching, accompanied by observation of class-room work in secondary schools, and including a discussion of class management (routine and discipline), the elements of school hygiene, and the types of school exercises. (A three-hour course.)

3. The Director of the School of Education may, in his discretion, excuse a candidate from the professional courses outlined above, (1) if the candidate is a normal-school graduate or has taken equivalent courses in a normal school or in another college or university; or (2) if the candidate has had at least one year of successful teaching experience. If, at the time of registration with the Committee on Appointments, the candidate has not completed one of the required courses, but is enrolled at that time in the course, a Committee recommendation may be given with the approval of the instructor in charge of the course.

The courses mentioned in Section 2 are (a) Education 1, Introduction to Education (4 hours), and (b) Education 10, Observation and Technics of Teaching (3 hours). Either course may be taken in either semester.

### CERTIFICATION OF HIGH-SCHOOL TEACHERS IN ILLINOIS

A student who expects to teach in the Illinois high schools should bear in mind that all teachers must be duly certificated. County high-school certificates are granted upon examination by county superintendents, and State high-school certificates upon examination by the State Superintendent. For county high-school certificates issued without an examination the new certificating law makes the following provision:

"At the option of the county superintendent, a high school certificate may be issued without examination to graduates of a recognized normal school, college, or university, who present within three years after graduation, certified credits in English, pedagogy and six high school subjects (chosen from a list published by the Examining Board) and accompanied by faculty recommendations of ability to teach in the high school." (Section 6.)

The educational courses required for the official recommendation of the University, Education 1 and 10, are commonly accepted as meeting the requirement in pedagogy.

State high-school certificates are granted under the following conditions:

"A four-year high school certificate valid in any high school in the State, for which the requirements shall be: (1) Graduation from a recognized college or university, or the completion of an equivalent preparation; (2) three years' successful teaching, two of which shall have been in the State on a first grade, a high school, or a supervisory county certificate; (3) a successful examination in English, educational psy-



chology, and the principles and methods of teaching, and (4) the preparation of a thesis on one or more secondary school problems, the subject or subjects of which shall be selected from a list prescribed by the Superintendent of Public Instruction.

"[NOTE—Candidates who have had three years of successful experience in teaching, two of which were in Illinois under a first grade certificate and have exchanged the same for a county high school certificate under the new law, meet the requirements of No. 2.]" (Circular 72, State Department of Public Instruction.)

Education 1, 10, and 25 embody the materials usually covered by the State examinations in educational psychology and in methods of teaching.

### CERTIFICATION OF SUPERINTENDENTS AND PRINCIPALS

The following are the requirements for certification in supervisory work:

"A four-year supervisory certificate valid for supervisory work and for teaching in any district in the State. The requirements for this certificate shall be: (1) Graduation from a recognized high school and from a recognized normal school, or an equivalent preparation; (2) three years' successful supervision, two of which shall have been in this State on a county supervisory certificate; (3) a successful examination in English, educational psychology, sociology, the history of education, and school organization, administration, and supervision, and (4) the preparation of a thesis on one or more problems of school administration, the subject or subjects of which shall be selected from a list prescribed by the Superintendent of Public Instruction.

"[NOTE—Candidates who have had three years of successful experience in teaching, two of which were in Illinois, under a first grade certificate, and have exchanged the same for a county supervisory certificate under the new law, meet the requirements of No. 2.]"

#### LIFE CERTIFICATES

"At the time of its expiration, upon evidence of successful teaching or supervision satisfactory to the Superintendent of Public Instruction, any four-year State certificate enumerated in this Act shall become valid and be endorsed for life. The Validity of State certificates now in force and those issued in accordance with this Act, shall be conditioned upon the good behavior of the holder." (Circular 72, State Department of Public Instruction.)

Education 1, 2, 4, 16, 20, and 25 embody the material usually covered by the examination (except in English) for the State supervisory certificate.

### REQUIREMENTS OF THE NORTH CENTRAL ASSOCIATION

Students who anticipate teaching in high schools accredited to the North Central Association of Colleges and Secondary Schools should complete courses in education aggregating at least *eleven* semester hours. This requirement of the Association is effective for new teachers after 1915, but is not retroactive. Certain work offered outside the department of education, especially "teachers' courses," may be counted as part of the eleven-hour minimum.

### THE CHICAGO TEACHER-TRAINING CENTER

In 1918 the State Board for Vocational Education designated the University of Illinois as an institution for the training of teachers for the trades and industries under the terms of the Smith-Hughes Act. In connection with this enterprise the College of Education was authorized by the Board of Trustees to establish a center in Chicago in which skilled mechanics possessing an interest in teaching might be trained. The Board of Education of the city of Chicago provides class-rooms and equipment for instruction. The instruction is carried on in night classes by members of the faculty of the University resident in Chicago and is under the administrative charge of the Director of the Chicago Center for the Training of Teachers of the Trades and Industries.

# THE SCHOOL OF RAILWAY ENGINEERING AND ADMINISTRATION

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## GENERAL STATEMENT

The School of Railway Engineering and Administration<sup>1</sup> has been established to prepare men for the technical and administrative departments of railroads. The work offered is arranged in five different curriculums, any one of which is designed to occupy four years' time. The curriculums are:

- Railway Civil Engineering
- Railway Electrical Engineering
- Railway Mechanical Engineering
- Railway Administration
- Railway Transportation

The first three of these curriculums are administered by the College of Engineering, and a description of them appears with that of other curriculums offered by this College. Students are admitted to them under the same conditions as to other curriculums of the College of Engineering, and they have available for their use all of the library, drafting-room, and laboratory facilities which constitute the equipment of this College. The last two curriculums are administered by the College of Commerce and Business Administration; they are described in detail in connection with the other curriculums of this College. Students are admitted to them under the same conditions as to other curriculums of the College of Commerce and Business Administration.

It is the purpose of each of these curriculums to add to a foundation of general discipline and training specialized training for those who look forward to careers in railway service.

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<sup>1</sup>Owing to drafts on the staff of this school for war service the organization has been temporarily suspended.

# MILITARY SCIENCE

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Under the Act of Congress of June 3, 1916, there have been established at the University of Illinois three units of the Reserve Officers' Training Corps.

All male students admitted to the University of Illinois who are citizens of the United States and physically fit, except (1) students of the College of Law, (2) students over twenty-five years of age when entering the University, (3) students entering the University with junior standing, and (4) students who have had two years of military work at other institutions having a United States Army officer on duty as professor of military science, are enrolled during their freshman and sophomore years in the Reserve Officers' Training Corps, and are required during these two years to devote three periods a week of not less than one hour each to military science and training. Two of the three periods are devoted to drill practise, and one period to theoretical training.

At the end of the sophomore year a student who so elects, who is recommended by the President of the University and approved by the Professor of Military Science and Tactics, and who signs a form of written agreement prescribed by the Secretary of War, may be enrolled for two more years of service in the Reserve Officers' Training Corps. Such students are required to devote five hours a week to an advanced course in military science and training throughout their junior and senior years, and the completion of this work becomes for them a prerequisite for graduation. They are required also to attend two summer training camps of four weeks each.

One hour of credit toward graduation is given for each semester of work in military science, making four credits for the required work of the freshman and sophomore years, and eight credits in all for students who elect the advanced course of the junior and senior years.

A student who completes the elective advanced course is eligible for appointment by the President of the United States as a reserve officer of the United States Army for a period of ten years; and is eligible, also, for appointment as a temporary second lieutenant of the Regular Army, in time of peace, for purposes of instruction, with the allowances provided by law for that grade and pay at the rate of \$100 a month for six months; on the expiration of this period of service with the Regular Army, he reverts to the status of a reserve officer.

The military instruction is under the charge of an officer of the United States Army. The course has special reference to the duties of officers of the line. A supply of arms and ammunition is furnished by the War Department, including U. S. magazine rifles (model 1917), accouterments for infantry and two pieces of field artillery; also regulation uniform of the value of \$41.83, consisting of one coat, wool O. D.; one pair shoes, russet; one shirt, wool, O. D.; overcoat, O. D. short; one pair leggins, canvas; one hat, service; one hat cord; two collar ornaments; one belt and chevrons. For those who attend summer camps the additional will be issued: two breeches, cotton O. D.; one pair shoes, marching; one shirt, wool O. D.; one pair leggins, canvas; one hat and one hat cord; valued at \$14.67.

The money value of a four-year scholarship in the R. O. T. C. is as follows:

Each man will receive in four years property valued at $4 \times \$41.83$ .	\$167.32
Each man will receive on three summers property valued at $3 \times \$14.67$ . . . . .	44.01
Each man recommended will receive commutation of subsistence, two years or 590 days at 40 cents per day . . . . .	236.00

Each man may receive commutation of subsistence in kind (not paid in cash) three summers, 135 days at 40 cents per day...	54.00
Transportation average 1000 miles per summer, 3000 miles for three summers at 4 cents per mile.....	120.00
Total.....	<u>\$621.33</u>
An average for each of the four years in the University.....	135.00
Besides items mentioned above, equipment issued for each student amounts to at least.....	50.00

The Cadet Brigade consists of two regiments of infantry (two headquarters companies, two machine gun companies, two supply companies, and 24 companies), a signal company, and an engineer company.

A special military scholarship, good for one year, is open to each student who attains the grade of commissioned officer; its value is paid to the holder at the close of the year. Appointments in the regiment are made on the nomination of the commandant of cadets confirmed by the Council of Administration. This gives the privilege of special technical training in various fields without any tuition charges. There shall be as many instructors in military science as are deemed necessary, to be selected from the field officers and captains of the regiment, upon the recommendation of the Professor of Military Science and Tactics, and approved by the proper authority. They shall receive, in addition to the money value of their military scholarship, one hundred dollars a year, payable at the rate of ten dollars per month from September 1.

A committee appointed by the President of the University examines candidates for nomination to the Governor of the State for commissions as brevet captains in the State militia. Candidates must be members of the senior class in full standing; must have completed the course of military studies; must have served two semesters as commissioned officers; and must be approved by the Council of Administration as having good reputations as scholars, officers, and gentlemen.

The University military band is composed of students, and every full term of service therein is counted as one term of drill. Those who play in the band after having earned their four military credits necessary for graduation have their incidental fees remitted at the end of each year. Besides giving several concerts during the year, the band furnishes music for regimental formations and ceremonies and other occasions as required by the President of the University. Membership is decided by competitive examination.

# PHYSICAL EDUCATION

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## FOR MEN

The object of the work of this department is to preserve and improve the bodily health of the students by rational exercises and to teach proper inter-collegiate sports. Physical education is compulsory for all freshmen. Regular classes are formed in boxing, wrestling, fencing, swimming, and for class and individual proficiency on the various gymnasium appliances. Lectures are given on personal hygiene.

All competitive athletic games are under the direct supervision of the Director of Physical Education, and an examination is required to show that membership on any team will not cause injury, but will tend to improve the physical condition. No student whose class work is unsatisfactory is allowed to play on a University team.

For a description of the Men's Gymnasium, see page 55.

## FOR WOMEN

The object of the work of this department is to preserve and improve the general health, carriage, and coordination of the young women of the University. Each student is given a physical examination; suitable exercise is prescribed and advice given.

The class work embraces corrective, hygienic, and recreative exercise, including free and light gymnastics, apparatus, marching, simple steps, games, and Maypole. Tennis, hockey, basketball, volleyball, baseball, and archery are played in season.

The gymnasium is open at certain hours and under suitable restrictions to all women of the University. The uniform consists of black serge bloomers, white middie blouse, black tie, and gymnasium shoes.

The swimming pool is open daily, except Saturday, from 10 to 12 a. m., and from 2 to 5:30 p. m. The regulation swimming suit of one piece must be made of cotton jersey or other cotton material.

For a description of the Woman's Gymnasium, see under Woman's Building, page 55.

# THE SUMMER SESSION

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EDMUND JAMES JAMES, Ph.D., LL.D., PRESIDENT OF THE UNIVERSITY

JOHN ALFORD STEVENSON, Ph.D., *Assistant Professor of Education and Secretary of the College of Education, and Director of the Summer Session*

## GENERAL STATEMENT

The Summer Session of the University of Illinois for 1918 opened on June 17, and closed on August 9, making a term of *eight weeks*. The Summer Session of 1919 will open on June 24 and close on August 15.

The courses, as a rule, extend through the eight weeks. Students who wish to remain for only six weeks may obtain from the Director of the Session a certificate of such attendance, but university credit will not be given for six-weeks courses, except in Library Science and physical education for men.

Students may register for courses aggregating eight credit hours or less.

## PURPOSE

The Summer Session is an organized integral part of the University year. Tho its organization is not subdivided into colleges, numerous courses are offered by departments in the College of Liberal Arts and Sciences, Commerce, Agriculture, Engineering, and in the School of Music and the Library School. All courses may be counted toward a bachelor's or a master's degree, unless otherwise specified. By attending two Summer Sessions, a regular student may reduce the eight semesters to seven, thus securing his degree a half year earlier than he would otherwise have done.

One of the purposes of the Summer Session is to meet the needs of the teachers in the public schools who wish to spend a part of the summer vacation in serious study or investigation. Numerous courses are designed for high-school teachers, supervising officers, teachers of special subjects (agriculture, art, home economics, manual training, music, etc.), and coaches of athletic teams; graduate courses are offered for college instructors, school supervisors, and principals who are working for advanced degrees.

## ADMISSION

Admission in regular status to courses in the Summer Session for which university credit is granted is limited to students who could be regularly admitted to the colleges of the University (Liberal Arts and Sciences, Commerce and Business Administration, Engineering, or Agriculture) in which they would be registered in the regular session.

In order to meet in full the entrance requirements for any one of these colleges, a student must obtain credit, either by passing entrance examinations, or by presenting certificates of work completed in accredited secondary schools or other recognized schools, for 15 units of high-school work, or the equivalent, in subjects accepted for admission to the University, including in the case of each college certain subjects especially prescribed for admission to that college. (See pages 65-81.)

Admission to courses which give university credit, *as special students, not candidates for a degree*, may be granted to persons 21 years of age or over, subject to the general regulations of the University relating to special students.

## REGISTRATION

Students will present themselves for registration on Tuesday, June 24, 1919.

### FEES

A tuition fee of twelve dollars (\$12) is required of all students in regular attendance at the Session. This entitles one to admission to regular courses, to all special lectures, and to one lesson per week of music of collegiate grade. An extra laboratory fee is charged in some courses for materials used. Any single course may be taken for a fee of six dollars (\$6) and the laboratory fee, if there be one. A single course is understood to mean not more than two and one-half credit hours. Fees in addition to the tuition fee are required for special work in Music, except as just noted.

### SCHOLARSHIPS

By ruling of the Board of Trustees of the University, all high school teachers in Illinois, and all other teachers in the State who are qualified to matriculate in the University as regular students, are entitled to Summer Session scholarships, exempting them from payment of the tuition fee. To matriculate regularly in the University, one must either pass the entrance examinations, or present a certificate from an accredited high school or other evidence of having completed the requisite amount of preparatory work.

The Board of Trustees has extended the scholarship privileges also to persons graduated from the Illinois State Normal Schools during the academic year preceding the session in which the scholarship is desired, and to persons (otherwise qualified) who have not been teachers, but who are under contract to teach in the State during the coming year.

Application blanks for scholarships may be obtained by addressing the Registrar.

### GRADUATE WORK IN THE SUMMER SESSION

The Summer Session places emphasis on graduate courses leading to the master's degree. The departments related to high-school teaching and to educational administration have been selected as the centers of this emphasis. An attempt is made to vary the graduate offerings from year to year so that advanced students each year may find acceptable work in their chosen fields.

The normal requirement for the master's degree is full work of graduate grade, satisfactorily completed, through one year of residence. This means a residence of thirty-six weeks at the University. Qualified graduate students may fulfill this residence requirement in four summer sessions of eight weeks each and an additional four weeks' study at the University under the direction of the person in charge of the major work. Thus a student, by working at the University for one week before or after each session under the direction of the professor in charge of his major subject, may earn the master's degree in four summers.

In certain cases it will be possible for the graduate student to complete the last fourth of his residence requirement under a leave of absence. This privilege may be granted in the event that the student is able to take advantage of opportunities for research and investigation that are not afforded in the University community. Superintendents, principals, and class-room teachers frequently find it possible to carry on investigations in connection with their school work. There are, for example, numerous problems of school administration and of teaching for which the public school itself forms the only available "laboratory." Where the investigation of such problems is prosecuted with the cooperation of a department of the University, it may be possible to count the work toward the master's degree.

### SUMMER COURSES IN LIBRARY TRAINING

Beginning in the summer of 1911, the Library School has conducted each year a summer session continuing for six weeks, to which were admitted only those actually *employed as librarians, or library assistants, or teacher-librarians, or under definite appointment to*

*serve in such positions.* In 1915 the requirement of graduation from a high school was added. The curriculum was planned to meet especially the needs of workers in public libraries and in high-school libraries of Illinois, and no tuition fee was charged students entering from this State; students entering from libraries in other states paid a tuition fee of \$12. The work was under the general direction of the faculty of the Library School, and the instruction was given by members of the faculty, supplemented by lectures by neighboring librarians. No university credit has been given for the work.

The work occupied the whole time of the student. The number of lectures in each subject was approximately as follows: Cataloging; classification and book numbers, 30 hours; book selection, 12 hours; library administration and extension, 12 hours; reference work, 12 hours; work with children, 12 hours; loan systems, order accession and shelf work, binding, and repairing, 12 hours.

The Library courses are not offered in connection with the Summer Session, but as an independent undertaking of the Library School.

### PLAYGROUND WORK AND COACHING

In addition to the regular gymnasium work, special courses in coaching high-school athletics were offered under the general direction of George A. Huff, Director of Physical Education for Men. This work was added because of the increasing demand for trained men to direct high-school athletics. A course in principles and methods of physical education, also special courses in folk dances, esthetic dancing and games were offered by Miss Nellie Bussell, instructor in the Department of Physical Education for women.

Courses of six weeks were offered in baseball coaching (Mr. Huff), football coaching (Mr. Zuppke), basketball coaching (Mr. Jones), and track coaching (Mr. Gill). These courses are particularly adapted to high-school teachers and principals who are engaged for part of their time in coaching athletic teams. The courses were so arranged that a student might, if he desired, devote his entire program to this work.

### DESCRIPTION OF COURSES

For a description of the courses offered in the Summer Session, see the General Description of Courses, beginning on page 235.



# THE COLLEGE OF LAW

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For the *faculty* of the College of Law and for the *courses* in law, see under "Law" in the Description of Courses, Part III; for *fees* and *expenses*, page 105.

## GENERAL STATEMENT

It is the aim of the College of Law to fit its students as completely as possible to become lawyers. The mere imparting of knowledge of the law as it is must be subordinated to the more important end of developing the powers of the student and training him in proper habits of legal reasoning and argument. The case method of discussion of selected judicial opinions is employed, but not to the exclusion of other methods designed to stimulate thought and initiative, such as the independent briefing of legal problems.

Courses are conducted so as to give a training in the principles of the common law which constitutes the foundation for the practise of law in Illinois or in any other state in the Union. Students are required to consult frequently Illinois decisions and statutes, which are made the basis of discussion in class. In the Practise Court and the courses in Common Law Pleading and Illinois Procedure, especial attention is paid to the rules of pleading and practise in Illinois.

## COURSES OFFERED

The College of Law offers two curriculums leading to the degree of Bachelor of Laws (LL.B.):

(1) A three-year curriculum in law, based on an entrance requirement of two years of college work.

(2) A four-year curriculum in law and non-legal electives, based on an entrance requirement of one year of college work.

## THE THREE-YEAR CURRICULUM IN LAW

### Admission

For admission to the three-year curriculum as a regular student an applicant must be matriculated and have 60 hours' credit in a college of this University; or have completed two full years of work as given at another college or university of recognized standing, as a matriculated student in such college of university; or have received by transfer 60 hours of university credit here.

Students from other institutions who may fall short of this requirement by not over five hours of credit, by transfer, may be admitted to the three-year curriculum as conditioned students; such conditions to be made up before the beginning of the student's second year in the College.

## THE FOUR-YEAR CURRICULUM IN LAW AND NON-LEGAL ELECTIVES

### Admission

For admission to the four-year curriculum as a regular student, an applicant must be matriculated and have 30 hours' credit in a college of this University, or its equivalent from another college or university of recognized standing. No conditions are permitted for admission to the four-year curriculum.

The degree of Bachelor of Laws is granted to students thus admitted who complete the

84 hours in law required in the three-year curriculum, and in addition thirty hours in other colleges, to be distributed over the four years.

Approximately two-thirds of law work and one-third in subjects other than law are to be taken during the first two years of the four-year curriculum.

### SPECIAL STUDENTS

A student who is twenty-one years of age and is entitled to admission as a regular student to the freshman class of another college of this University, will be admitted as a special student in the College of Law. If he attains in the courses of the first year an average grade of C or over, he will be admitted to regular standing, and he may receive the degree of Bachelor of Laws if in all the courses he presents for the degree his average grade is C or more.

Students twenty-one years of age or over, who are not able to satisfy the requirements for admission stated above, but who have had a preliminary education which would entitle them to take the Illinois State Bar Examination, may, by permission of the faculty, be admitted without examination as special students, but no such student may be a candidate for a degree. In exceptional cases, other persons may, by permission of the faculty, be admitted as special students.

### ADVANCED STANDING

After matriculation, an applicant may obtain advanced standing (1) by transfer of credits from another accredited law school upon presentation of a certificate of honorable dismissal and a certified record of work done; or (2) by examination taken at the time of entrance to the College of Law in first-year subjects only.

### SUGGESTED PRE-LEGAL CURRICULUM

The student entering the University with the intention of taking a law course is advised to register as a pre-legal student and to plan his preliminary college work with great care. He is invited to consult members of the law faculty in regard to his plans. In general the following schedule of studies is recommended by the faculty of the College of Law:

FIRST SEMESTER		FIRST YEAR		SECOND SEMESTER	
	Hours <sup>1</sup>				Hours <sup>1</sup>
Hist. 2a—English History.....	3	Hist. 2b—English History.....	3	Hist. 2b—English History.....	3
Rhet. 1 <sup>2</sup> —Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3
Foreign Language.....	4	Foreign Language.....	4	Foreign Language.....	4
Mathematics or Chemistry.....	5	Mathematics or Chemistry.....	5	Mathematics or Chemistry.....	5
or		or		or	
Acc'y 1a—Principles of Accounting.....	3	Acc'y 1b—Principles of Accounting.....	3	Acc'y 1b—Principles of Accounting.....	3
Phys. Ed. 1 and 1a—Gymnasium and Hygiene	1	Phys. Ed. 2—Gymnasium.....	1	Phys. Ed. 2—Gymnasium.....	1
Mil. 1a—Military Drill.....	1½	Mil. 2a—Military Drill.....	1½	Mil. 2a—Military Drill.....	1½
Mil. 1b—Military Theory.....	1½	Mil. 2b—Military Theory.....	1½	Mil. 2b—Military Theory.....	1½
Total.....	17 or 18	Total.....	17	Total.....	17
		SECOND YEAR			
Econ. 1—Principles of Economics.....	5	Econ. 2—Money and Banking.....	3	Econ. 2—Money and Banking.....	3
Hist. 3a—History of the U. S.....	3	Engl. 20—Chief English Writers.....	4	Engl. 20—Chief English Writers.....	4
Philos. 1—Logic.....	3	Hist. 3b—History of the U. S.....	3	Hist. 3b—History of the U. S.....	3
Pol. Sci. 1—American National Government.....	3	Pol. Sci. 3—State and Local Government.....	3	Pol. Sci. 3—State and Local Government.....	3
Pub. Sp. 1—Oral Expression.....	2	Pub. Sp. 2—Extemporaneous Speaking.....	2	Pub. Sp. 2—Extemporaneous Speaking.....	2
Mil. 3a—Military Drill.....	1½	Mil. 4a—Military Drill.....	1½	Mil. 4a—Military Drill.....	1½
Mil. 3b—Military Theory.....	1½	Mil. 4b—Military Theory.....	1½	Mil. 4b—Military Theory.....	1½
Total.....	17	Total.....	16	Total.....	16

The courses in military, physical education, rhetoric, and foreign language are required of freshmen, and the second-year courses in military of sophomores, in the College of Liberal Arts and Sciences. With these exceptions the above list is intended to be suggestive rather than prescriptive.

<sup>1</sup>Semester hours. For definition, see page 237.

<sup>2</sup>Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2, may be excused from Rhetoric 1. See page 72.

English political and constitutional history is necessary for the understanding of much of the material of legal study. The practical usefulness of courses in public speaking and logic is obvious.

Students who may be interested in mathematics and the physical sciences may properly substitute additional courses in these subjects in the second year. The training in the deduction of principles and their application to the solution of problems which these studies afford is held to be of distinct advantage to prospective students of the law.

Still other suggestions as to suitable electives for pre-legal students may be obtained from the outline of the General Business Curriculum, page 127.

### SIX-YEAR COMBINED COURSES

Ordinarily seven years are required to obtain the bachelor's degree in arts or science and the degree in law, but by a proper selection of studies one may take both degrees in six years. A student who has junior or senior standing in the College of Liberal Arts and Sciences or of Commerce may, subject to the approval of the Dean of the College of Law, elect not less than two of the first-year courses in law, amounting to at least five hours, and count credit therefor both toward the degree of Bachelor of Arts or Bachelor of Science and toward the degree of Bachelor of Laws (LL.B.) or Doctor of Law (J.D.). Students in other departments are not permitted to elect work in law until their junior year. Students registered in the College of Law may count toward the law degrees six hours of the work offered by the College of Liberal Arts and Sciences in jurisprudence, international law, and administrative law.

The attention of students is called also to the six-year combined curriculum in Commerce and Law (page 133).

Students in a combined six-year course will need to exercise some care and foresight in order to be able to comply with the requirements of the College of Liberal Arts and Sciences or the College of Commerce as to majors, minors, and group electives within three years.

A student who is a candidate for both the A.B. degree and the degree of LL.B., or J.D., must in each semester of his fourth year register both in the College of Law and in the College of Liberal Arts and Sciences.

### PRACTISE COURT

The sessions of the Practise Court are held every Monday afternoon of the first semester for the third year class, and every Monday afternoon of the second semester for the second and third year classes together. The court is presided over by Judge O. A. Harker, who has had an experience of twenty-five years as a judge of the Circuit and Appellate Courts of Illinois. It is the purpose to have the proceedings of the Practise Court conform to proceedings in the various courts of the State. Students are trained in the preparation of pleadings, brief making, legal investigation and argument, the preparation of legal documents, and in the trial of cases, both civil and criminal.

### THE LAW LIBRARY

The Law Library contains 25,000 volumes, including all the reports of the courts of last resort of all the states; the United States Supreme, Circuit, and District Court reports; the National Reporter System; the English reports; the Irish reports; the Scotch Appeal cases; the Current Canadian and Australian reports, and complete reports of several of the Canadian provinces; the statutes of the various states; several sets of selected cases, such as the American Reports, American State Reports, American Decisions, Lawyers' Reports Annotated, and American and English Cases Annotated; American and English encyclopedias and digests; and a full collection of standard text-books and legal periodicals.

### THE DEGREE OF BACHELOR OF LAWS

The degree of Bachelor of Laws (LL.B.) is granted to regularly matriculated students who complete all the courses in the first-year list (see the outline of the curriculum below), the course in Equity (Law 12a-12b), in the second year, the one-hour course in Legal Ethics (Law 26) in the third year, and enough of the other courses to make 84 hours of credit. A student having grades below C in subjects aggregating more than twenty-five per cent of his entire work will not be graduated.

### THE DEGREE OF DOCTOR OF LAW

The degree of Doctor of Law (J.D.) is granted to students who comply with the following conditions:

- (1) Complete the work required for the degree of Bachelor of Laws.
- (2) Secure a bachelor's degree in liberal arts and sciences at least two academic years prior to the completion of the courses for the degree of Doctor of Law.
- (3) Obtain a minimum average grade of B in the College of Law.
- (4) Present a thesis approved by the faculty of the College of Law.

The thesis may be returned to the writer for revision, or if unsatisfactory, it may be rejected altogether. If returned for revision it may be rejected after being revised. If accepted it will be filed in the Law Library, and may be published by the College of Law or by the University.

### CERTIFICATE FOR ADMISSION TO THE ILLINOIS BAR EXAMINATION

Any student, altho not a candidate for a law degree, if he has taken at least ten hours a week for the period of three academic years, from among the courses offered, is entitled to a certificate thereof from the University, which certificate satisfies the requirements as to legal studies prescribed by the Supreme Court for applicants for admission to the bar.

### CURRICULUM

The program of instruction in law is designed to occupy the student three full years. The most fundamental subjects are presented in the first year, the more specialized and practical topics in the second and third years. The work of the first year, thirty semester hours, is prescribed. The work of the second and third years is elective, except Equity (Law 12a-12b) in the second year and Legal Ethics (Law 26) in the third year. Students are required to elect courses averaging twenty-eight (28) hours for each of these years. The courses elected for either year must ordinarily be chosen from those grouped under the heading for that year. A few subjects are given only in alternate years. The election of courses by any student is in every case subject to the approval of the Dean.

First-year students may not take more than 15 hours without special permission; except that public speaking may be added without such special permission.

Second-year and third-year students may not take more than 15 hours without special permission, unless their work for the preceding semester has averaged C or over. If their average has been C, 16 hours may be taken.

### CURRICULUM IN LAW

FIRST SEMESTER <i>Prescribed Subjects</i>		FIRST YEAR		SECOND SEMESTER <i>Prescribed Subjects</i>	
	Hours <sup>1</sup>				Hours
Law 1a—Contracts.....	4	Law 1b—Contracts.....	3		
Law 2a—Torts.....	3	Law 2b—Torts.....	2		
Law 6—Personal Property.....	3	Law 3—Real Property.....	3		
Law 5—Criminal Law.....	3	Law 7—Domestic Relations.....	2		
Law 37a—Brief Making.....	2	Law 11—Agency.....	3		
		Law 37b—Brief Making.....	2		
<b>Total.....</b>	<b>15</b>	<b>Total.....</b>	<b>15</b>		

<sup>1</sup>Semester hours. For definition, see page 237

## SECOND YEAR

Law 8—Evidence.....	4	Law 9—Sales.....	3
Law 12a—Equity.....	3	Law 12b—Equity.....	2
Law 15—Bills and Notes.....	3	Law 18—Wills.....	2
Law 4—Common Law Pleading.....	3	Law 10—Titles to Real Property.....	4
Law 13—Damages.....	2	Law 20—Equity Pleading.....	3
Law 32—Quasi-Contracts.....	2	Law 35b—Practise Court.....	1
Law 19—Partnership.....	2	Law 16—Trusts.....	3
Law 27—Future Interests in Property.....	3	Law 33—Restraint of Trade.....	2
Law 28—Insurance.....	2	Law 14—Carriers.....	2

## THIRD YEAR

Law 15—Bills and Notes.....	2	Law 17—Private Corporations.....	4
Law 22—Constitutional Law.....	4	Law 16—Trusts.....	3
Law 4a—Illinois Procedure.....	3	Law 21—Suretyship.....	3
Law 31—Conflict of Laws.....	3	Law 23—Mortgages.....	2
Law 36a—Practise Court.....	1	Law 36b—Practise Court.....	1
Law 27—Future Interests in Property.....	3	Law 29—Office Practise.....	2
Law 19—Partnership.....	2	Law 33—Restraint of Trade.....	2
		Law 26—Legal Ethics.....	1

## PRIZES

Eight scholarship prizes are open to matriculated students of the first and second years, to be awarded at the end of each year, four of \$15 each semester and four of \$7.50 each semester, available in discharge of incidental fees.

The American Law Book Company, of New York, offers an annual prize, consisting of a regular edition of CYC, including supplements, to be awarded to the senior making the best average during his senior year.

Callaghan & Company, law publishers, of Chicago, offer an annual prize, consisting of the Cyclopedic Law Dictionary, to be awarded to the member of the second-year class making the best average during his second year.

## PRIVILEGES OF STUDENTS

The students of the College of Law may take, without extra fee, courses of study in other departments of the University, provided they secure the approval of the Dean of the College of Law. Especial attention is called to the courses in public speaking and debate, and to the courses in history, economics, and political science in the College of Liberal Arts and Sciences and the Graduate School.

Law students are entitled to library privileges in the general library as well as in the law library, and possess in general all the rights and privileges enjoyed by other students of the University, such as the use of the gymnasium, tennis courts, and golf links.

# THE COLLEGE OF MEDICINE

## BUILDINGS AND EQUIPMENT

The College building is located in the city block bounded by Harrison, Congress, Honore, and Lincoln streets, in Chicago. For description, see pages 56-57.

## CLINICAL FACILITIES

### Dispensary

The Dispensary is divided into ten departments: medicine, surgery, pediatrics, orthopedics, laryngology, dermatology, ophthalmology, gynecology, neurology, and genito-urinary diseases. These departments occupy the first floor and part of the second floor of the College Building. Twenty-four thousand two hundred and eighty-one treatments were given in 1917-18, six thousand eight hundred and seventy-three new patients were registered during the same period.

Opportunities are afforded the student to examine the cases under the guidance of instructors. As far as possible the student is required to make laboratory examinations pertaining to his own cases. Such examinations as the Wassermann reaction are made by the instructors in the laboratory, but the student has every opportunity to follow these and to learn the technic involved.

### Clinics

In addition to those in the dispensary, more than 600 clinics in various hospitals are open to students. The great majority of diseases seen in the temperate zone are demonstrated, and most of the operations of surgery are performed in these clinics. Fourth-year students are required to examine and diagnose many cases, and under certain conditions may assist in operations.

*The Cook County Hospital*, the largest charity hospital in America, is located within half a block of the College. During the past year, it has cared for 69,326 patients. In this hospital is conducted much of the clinical instruction of the College. Medical appointments in this institution are made each year by the Civil Service Board. The internes, 66 in number, are selected each spring by competitive examination. Only graduates of medical colleges of Cook County are eligible for these examinations. The internes serve eighteen months.

*The County Morgue* is located in the hospital grounds, and daily post-mortems are held by the pathologists of the hospital.

The hospital tickets, costing \$5.00 each, for sale at the office of the Warden, admit the holder to all clinics and autopsies and all public operations and lectures.

*The University Hospital* is located opposite the College. The Directors of the hospital are members of the faculty of the College. Approximately forty per cent of the clinical instruction of the College is conducted in this institution. Bedside instruction is given, under certain conditions, to small groups of students. No students excepting those of the College were admitted to clinical instruction in the hospital during the year 1917-18. The selection of internes for this hospital is limited to graduates of the College.

Clinical instruction to students in small groups, and bedside instruction to those serving as externes, may be given in the following hospitals:

Augustana Hospital  
St. Luke's Hospital  
St. Joseph's Hospital

Michael Reese Hospital  
St. Mary's Hospital  
The Illinois Charitable Eye and Ear Infirmary

In addition to the above, there are more than sixty public and private hospitals in Chicago, each of which appoints from two to four internes annually.

### THE QUINE LIBRARY

The library of the Colleges of Medicine and Dentistry is housed on the second floor of the medical building. It includes 19,940 bound volumes and a number of reprints and separates. Many of the departments of the three schools are supplied with working libraries. The collections of the library include the standard text-books, works of reference, monographs, and journal files in the fields of medicine, dentistry, and pharmacy.

### ADMISSION

For admission to the College of Medicine of the University of Illinois in October, 1918, candidates were required to present four years' work in an accredited high school plus two years' work in a recognized college, or the full equivalent, including prescribed subjects, as follows:

#### The High-School Requirement

1. Four years' work in an accredited high school or the equivalent, comprising not less than 15 units in acceptable subjects, including prescribed subjects as follows:

English.....	3 units <sup>1</sup>
Algebra.....	1 unit
Plane geometry.....	1 unit
Latin, Greek, German, or French (both units in the same language).....	2 units
History and civics.....	1 unit
Electives.....	7 units

Total.....15 units

2. Two years' work in a recognized college or university, comprising not less than 60 semester hours and including prescribed subjects as follows:

#### The Collegiate Requirement

Chemistry (see Note 1).....	8 semester hours
Physics (see Note 2).....	8 semester hours
Biology (see Note 3).....	8 semester hours
English (see Note 4).....	6 semester hours
German, French, Spanish, or Italian (see Note 5).....	6 semester hours
Electives outside of the chemical, physical, and biological sciences (see Note 5).....	6 semester hours
Free electives (see Notes 1 and 6).....	18 semester hours

Total.....60 semester hours

### Notes

*Note 1: Chemistry.*—Four of these 8 semester hours must consist of laboratory work. *Beginning January 1, 1919, the requirement in chemistry will be raised to 12 semester hours; the number of free electives will thus be reduced in 1919 to 14 hours.*

*Note 2: Physics.*—At least 2 of these 8 semester hours must consist of laboratory work. This requirement may be satisfied by 6 semester hours of college physics, of which at least 2 must be laboratory work, if preceded by a year (one unit) of high-school physics.

<sup>1</sup>For definitions of "unit" and "semester hour" see page 198.

*Note 3: Biology.*—Four of these 8 semester hours must consist of laboratory work. This requirement may be satisfied by a course of 8 semester hours in either general biology or zoology, or by courses of 4 semester hours each in zoology and botany, but not by botany alone.

*Note 4: English.*—The usual introductory college course of 6 semester hours in English composition and literature is intended.

*Note 5: German, French, Spanish, or Italian.*—German or French is preferred. The student is strongly urged to secure a reading knowledge of one of these languages. This will ordinarily require at least two years' work in the high school followed by at least 6 hours' work in the same language in college, or two years' work (at least 12 hours) in college, if the same language was not begun in the high school, or the equivalent.

*Note 6: Electives.*—As desirable electives the following subjects are suggested: psychology, college algebra and trigonometry, additional English; economics, history, sociology, political science; logic; Latin; Greek; drawing. Among the free electives advanced chemistry, zoology, and botany may be offered.

### No Conditions Permitted

*No conditions are permitted.* Candidates for admission who in June, 1919, will have completed the above requirements except for a few hours in collegiate subjects should plan to make up these deficiencies in full by attendance at summer sessions during the summer of 1919. The Secretary of the College of Medicine will be glad to advise candidates as to the opportunities to be offered at various universities in the summer of 1919 for making up such deficiencies.

### Definitions of "Unit" and "Semester Hour"

By a *unit* of high-school or academy work is meant a year's work in a single subject; it being understood that the school year shall be not less than 36 weeks in length, that classes shall recite 5 times a week, that the recitation period shall be not less than 40 minutes long, that in science subjects there shall be double periods twice a week, and that double time shall be given in subjects like drawing, manual training, and bookkeeping, in which little or no outside study is required. Since high-school students ordinarily take four subjects at a time throughout the four years of the high-school course, 15 units represent approximately four years of high-school work.

By a *semester hour* of college credit is meant the work of a class meeting once a week for a semester of 18 weeks. Two or three hours of laboratory work are considered the equivalent of one hour of lecture or recitation. Sixty semester hours represent ordinarily two years of college work.

### HOW THE ENTRANCE REQUIREMENT MAY BE MET

The high-school requirement may be satisfied either by certificate or by examination.

#### High-School Credits by Certificate

High-school credits will be accepted by certificate from the following sources:

1. From high schools and academies in the State of Illinois which are accredited by the University of Illinois.
2. From schools accredited by the North Central Association of Colleges and Secondary Schools.
3. From schools accredited by the state universities which are included in the membership of the North Central Association of Colleges and Secondary Schools, provided the Illinois standard time requirements are met.



4. From high schools and academies registered by the Regents of the University of the State of New York.
5. From schools approved by the New England College Entrance Certificate Board.
6. From the state normal schools of Illinois and other normal schools having equal requirements for graduation.

### High-School Credits by Examination

High-school credits may be made by examination:

1. In the examinations conducted by the Registrar of the University of Illinois at the University in Urbana in January, July, and September of each year.
2. In the examinations conducted by the Registrar of the University of Illinois at the College of Medicine in September of each year.
3. In the examinations conducted in June of each year by the College Entrance Examination Board.
4. In the examinations conducted by the Regents of the University of the State of New York.

### College Credits

College credits will be accepted by *certificate* from recognized colleges which require for admission the completion of at least 14 units of high-school work in an accredited high school or the full equivalent thereof, and for graduation, in addition, four years of college work.

### ADMISSION OF SPECIAL STUDENTS

The general rule of the University with reference to special students will apply to the College of Medicine: Persons over twenty-one years of age, *not candidates for a degree*, may, on approval of the Dean, be admitted to classes for which they are prepared.

### ADVANCED STANDING

The University will accept scholarship and time credits for work done in medical colleges having standards equal to those of the College of Medicine of the University of Illinois, in so far as this work coincides with or is the full equivalent of the courses prescribed by the University.

The applicant must present a letter of honorable dismissal from, and be eligible for promotion in, the college in which he has pursued his medical studies and must comply with the requirements for such promotion in the University of Illinois.

### REGISTRATION

Students are required to register in the office of the Secretary immediately on the opening of the term for the work of that term, and credit will be allowed only in the branches in which they are registered. Students are registered in the order in which their fees are paid.

### COLLEGIATE YEAR

The College of Medicine of the University of Illinois, as a war emergency measure, began on June 3, 1918, to operate a continuous session on the Quadrimester System, for the benefit of those students who were entering or were in the Enlisted Medical Reserve Corps. Under this system, the calendar year was divided into three terms of four months each, instead of four terms of three months each as under the Trimester or Quarter System, or two terms of four months each as under the usual Semester System. The terms were to begin about June 1, October 1, and February 1, of each year. A student could enter the college at the beginning of any term.

Students entering or in the Enlisted Medical Reserve Corps who matriculated prior to October 1, 1917, were to be required to attend at least four college years of eight months each in each of four separate calendar years, and the time elapsing between the entrance on the first medical year and the completion of the last medical year was to be not less than forty months.

Students other than those entering or in the Enlisted Medical Reserve Corps were to be required to attend at least four college years of eight months each in each of four separate calendar years, and the time elapsing between the entrance on the first medical year and the completion of the last medical year was to be not less than forty-four months. This involved no change from the former system except in the case of those students entering or in the Enlisted Medical Reserve Corps.

The subjects presented during the quadrimester of the summer of 1918 are listed under the general summary of courses, pages 216-218.

Shortly after the beginning of the second quadrimester, the Students' Army Training Corps was inaugurated, and the Committee on Education and Special Training of the United States War Department recommended that the work be presented on the basis of the quarterly system. The plan of operation was accordingly changed to this system with the exception of that of the fourth-year class. This group of students had but one quadrimester's work to finish. Their work was scheduled to run until February 1. The subjects presented to this class during this quadrimester are listed on page 217. For a summary of subjects and hours presented to the other three classes see pages 216-218.

On the demobilization of the Students' Army Training Corps, the quarter was extended to February 1, 1919, thereby making a period of instruction equivalent to a semester. The added time was devoted to a review of the work of the quarter.

### FEES AND EXPENSES

#### Fees<sup>2</sup>—New Schedule effective September 1, 1917

	First Year <sup>1</sup>	Second Year <sup>1</sup>	Third Year <sup>1</sup>	Fourth Year <sup>1</sup>
Matriculation <sup>3</sup> .....	\$ 10.00	.....	.....	.....
Registration.....	5.00	\$ 5.00	\$ 5.00	\$ 5.00
General Ticket.....	120.00	120.00	140.00	155.00
Laboratory.....	30.00	35.00	5.00	.....
Diploma.....	.....	.....	.....	5.00
	<hr/> \$165.00	<hr/> \$160.00	<hr/> \$150.00	<hr/> \$165.00

NOTE.—County Hospital ticket, \$5.00. Maternity Fee, Chicago Lying-In Hospital, \$15.00.

All fees are payable in advance. The entire matriculation fee and laboratory fee are due and must be paid during the registration days of the first semester, together with one-half of the general fee. The remainder of the general fee is due and payable on the registration days of the second term.

Exceptions to this rule will be made only with the approval of the proper administrative officer.

There are no fees for special courses or quizzes. No members of the instructional staff are allowed to accept special fees.

<sup>1</sup> The term "year" in this schedule of fees refers to a period of instruction extending over two terms of eighteen weeks each.

<sup>2</sup> All students taking Gross Anatomy are required to make a deposit of \$10.00 for the use of a disarticulated skeleton. This deposit is returned to the student at the end of the year on the return of the material. The Trustees reserve the right to change the fees at any time through publication in the annual announcement.

<sup>3</sup> Not required in the case of students who have previously matriculated in any other college of the University of Illinois.

Fees charged to special students are based on the amount of work taken.

Alumni are admitted to all regular courses without charge, except in laboratory work, in which a charge is made for material actually used.

Each student is required to have an individual microscope. Provision has been made whereby the student can purchase a microscope at reduced rates and pay for the same in annual installments. If a student be unable to purchase a microscope, the school will rent him one for his exclusive use at the rate of \$2.50 to \$4.00 per semester, depending on the equipment of the instrument.

### Living Expenses

The expense of living in Chicago is less than in most other large cities. From thirty to forty dollars a month may be regarded as adequate for the ordinary living expenses of a student exclusive of books, clothing, railroad fare, and miscellaneous needs.

The expense for books varies between \$25.00 and \$50.00 a year. The instructors at the beginning of each course direct their students in regard to the purchase of text-books.

### Scholarships

Through the generosity of the late Professor R. L. Rea a fund has been provided for four scholarships each year for worthy students. These scholarships are awarded annually by the officers of the Faculty.

For the session of 1917-18, they were granted to the following students:

George E. Clarke

Ruth Leonard

Raymond John Mercey

James E. Fetherston

The scholarship given by the Northwestern branch of the Woman's Foreign Missionary Society of the Methodist Episcopal Church was awarded to Ethel L. Keckler.

The scholarship given by the Congregational Woman's Board of Missions of the Interior was awarded to Josephine Kennedy.

## COURSES OFFERED

The student is offered his choice of the following courses:

1. A course of eight years—four years in the College of Liberal Arts and Sciences at Urbana, leading to the degree of Bachelor of Arts, followed by four years in the College of Medicine in Chicago, leading to the degree of Doctor of Medicine. This plan not only gives a liberal course of study and a medical course as well, but offers opportunity in the last two years of the medical course for specializing in chosen lines. This course of study is recommended to young men who can afford the time for it and who are of the average age of graduation from the public high schools.

2. A seven-year course—three years in the College of Liberal Arts and Sciences at Urbana, followed by four years in the College of Medicine in Chicago. Students taking this course are permitted, at the end of their first year in the College of Medicine, to transfer credits in the medical sciences to complete the requirements for graduation of the College of Liberal Arts and Sciences, and receive the degree of Bachelor of Arts. On the completion of the remaining three years in the College of Medicine they receive the degree of Doctor of Medicine.

3. A six-year course—two years in a recognized college of liberal arts and sciences followed by four years in the College of Medicine. The work of the first two years must include certain prescribed subjects. On the completion of the first two years in the College of Medicine, these students receive the degree of Bachelor of Science; and on the completion of the four years in the College of Medicine, they receive the degree of Doctor of Medicine. The two years of work in arts and sciences required for admission to the College of Medicine may be taken in the College of Liberal Arts and Sciences at Urbana.

**REQUIREMENTS FOR GRADUATION**

A candidate for graduation from the College of Medicine must meet the following requirements:

1. He must be at least twenty-one years of age.
2. He must have presented acceptable evidence of good moral character.
3. He must have paid all indebtedness to the college.
4. He must have completed a prescribed curriculum of the College of Medicine, comprising four years, of thirty-six weeks each, of work in medical subjects. Students admitted to advanced standing from other medical schools will not be given full time credit for any year of less than thirty-two weeks of actual work. The candidate must obtain satisfactory credits in all required subjects and pass his final examinations in accordance with the rules laid down by the faculty. The last year of work must have been taken in the University of Illinois College of Medicine.
5. Persons matriculating as first-year medical students for the year beginning October 1, 1917, or thereafter, after completing satisfactorily the four-year curriculum referred to above (in paragraph 4) must complete satisfactorily a hospital course of not less than twelve months' duration in a hospital approved by the faculty of the College of Medicine before receiving the diploma of Doctor of Medicine.

In order to be eligible for an internship in an approved hospital in Illinois a candidate must pass the regular examination of the Illinois State Board of Health and receive from that Board a "limited license," authorizing him "to practise medicine or surgery in a hospital approved by the Illinois State Board of Health and in no other place whatsoever in this State, said limited license to remain in force and effect for a period not exceeding eighteen months from date of issue of same." (Schedule of Minimum Requirements for Medical Colleges in good standing with the Illinois State Board of Health as amended January 27, 1917.)

The diploma for the degree of Doctor of Medicine will be issued on the presentation of satisfactory evidence that the hospital year has been acceptably completed.

The rules of the Illinois State Board of Health make the following provision for the issuance of the permanent license:

"At the expiration of the limited license and surrender of same, or upon the completion of the twelve months hospital course and the surrender of the limited license, and upon presentation of satisfactory evidence that the hospital course has been completed within eighteen months subsequent to the date of completion of the fifth year of the medical course, and further that the candidate presents a diploma of graduation by the medical college, school, or institution in which he or she completed the fifth year of the medical course, the State Board of Health may then issue to the holder of said temporary or limited license a regular permanent certificate, without further examination or fee, provided that all other requirements prescribed by the Act regulating the practise of Medicine in the State of Illinois and by the rules of the Illinois State Board of Health relating thereto have been satisfactorily complied with."

**GENERAL PLAN OF INSTRUCTION**

The course of study extends over four years. During the first two years the work is, in the main, confined to the sciences fundamental to practical medicine, and the time of the student is largely devoted to laboratory work; during the first year, this consists of work in anatomy, chemistry, embryology, histology, and physiology. During the second year the study of anatomy and physiology is continued, and in addition the student takes up bacteriology, laboratory diagnosis, operative surgery, pathology, materia medica, pharmacology, therapeutics, and hygiene.

During the third and fourth years the time is largely devoted to the various clinical branches, emphasis being given to practical instruction in dispensary and hospital clinics.

Students are prohibited from doing work that interferes in *any* way with the fulfillment of the requirements of the curriculum. Unofficial clinical work may not be substituted for the official clinical requirements of the curriculum.

### Optional Work

Optional courses supplementary to the required work of the regular curriculum are offered in many departments. Students may be permitted to register for such courses, after completing the work of the first year, with the consent of the committee. No credit toward the degree in medicine is allowed for this work.

### Grades

The passing grade in each subject is 70. A grade from 60 to 70 constitutes a "condition." A mark below 60 or the failure to remove a "condition" by re-examination constitutes a "failure," and the subject must be repeated in course. One and one-half hours of condition is counted as the equivalent of one hour failure. A student who in any semester receives failures in one-half the total number of hours of his course, or the equivalent in conditions, or in failures and conditions combined, shall be refused further registration in the College of Medicine.

### Examinations

General examinations are held in all subjects at the end of each term during the week set apart for this purpose. Absences from these examinations count as failures unless they occur for satisfactory reasons, in which case the student may be examined at the discretion of the instructor.

Examinations for the removal of conditions in the work of the first three years are held during the week preceding the opening of the next collegiate year. For subjects presented in the first term of the fourth year, re-examinations are held not later than two weeks from the end of that term.

### Promotion

A student who has any failure standing against him shall not be advanced to the next year without the permission of the committee on promotion.

Students who fail in subjects given in the first term of the fourth year totaling more than 48 hours will not be admitted to candidacy for graduation in that collegiate year, but must repeat the subjects the following year. No student may be a candidate for graduation in medicine who has conditions in subjects amounting to more than 96 hours.

No student having grades below 75 in subjects aggregating twenty-five per cent of his entire work in the junior college may be a candidate for the degree of Bachelor of Science.

### Reports

Semester reports on scholarship and attendance are mailed to all students as soon as possible after the end of each term.

# DESCRIPTION OF COURSES IN MEDICINE<sup>1</sup>

## ANATOMY, HISTOLOGY, EMBRYOLOGY

ALBERT CHAUNCEY EYCLESYMER, B.S., M.D., Ph.D., *Professor and Head of the Department*

VICTOR EMANUEL EMMEL, M.S., Ph.D., *Associate Professor*

ROY LEE MOODIE, A.B., Ph.D., *Assistant Professor*

FRANKLIN PEARCE REAGAN, A.B., Ph.D., *Instructor*

ARTHUR REUBEN COOPER, B.S., Ph.D., *Instructor*

THOMAS BYRD MAGATH, Ph.B., M.S., Ph.D., *Instructor*

JOHN WOOD MACARTHUR, A.M., *Instructor*

OTTO FREDERICK KAMPMEIER, A.B., Ph.D., *Instructor*

THOMAS SMITH JONES, B.F.A., *Artist*

WILLARD CAMERON SHEPARD, *Artist*

LOUIS N BOELIO, *Technician*

HARRY ARMSTRONG, *Technician*

ADOLPH HAMMER, *Director of Plastic Studio*

### General Statement

The laboratories for gross anatomy comprise two dissecting rooms and a number of smaller rooms for embalming, storing, and prosecting. A plastic studio, a branch of the Hammer Studio of Munich, is situated on the sixth floor adjacent to the dissecting room and is available for anatomical reconstruction work and the use of models for teaching purposes. The laboratories for histology and embryology, together with the offices and research laboratories, are situated on the third and fourth floors of the Medical Building. The equipment includes apparatus for embalming, sectioning, macerating, corroding, and digesting; microtomes, microscopes, paraffin ovens, drawing apparatus, chemicals, glassware, and Grüber stains. A small museum contains special dissections, osteological preparations, and models; sets of histological, neurological, and embryological slides; charts, lantern slides, and other teaching accessories. The department library contains the standard texts and about two thousand five hundred special monographs. All the English, German, and French anatomical journals are received. The Crerar Library is readily accessible and makes it possible to consult practically the whole literature on anatomy, biology, and zoology.

### Required Courses—First Year

22<sup>1</sup>. Embryology.—Ovogenesis and spermatogenesis, maturation, ovulation and its relation to menstruation, fertilization, segmentation, gastrulation, formation, and significance of germinal layers; formation of foetal envelopes and placenta; organs, and systems of organs; congenital malformations. Lectures and recitations; 2: laboratory; 2 two-hour periods, (*eight weeks*). Professor EYCLESYMER, Mr. MACARTHUR, and assistants

23. Cytology, Histology, and Microscopic Anatomy.—Animal cells; modified cells in blood and lymph, epithelial, connective, muscular, and nervous tissues, and their relationships in the body. Lectures and recitations; 3: laboratory; 3 three-hour periods. *I*.

Professor EYCLESYMER, Mr. MACARTHUR, and assistants

<sup>1</sup> The Arabic numerals preceding the captions indicate the number of the courses. Unless otherwise specifically stated, the Arabic numerals following the descriptions of courses indicate the number of one-hour periods per week. The Roman numerals *I* and *II* indicate the number of sixteen-week periods over which the course extends.

**26. Neurology.**—The gross and microscopic anatomy of the brain, spinal cord, and organs of special sense. Lectures and recitations, 2: laboratory, 2 two-hour periods (*eight weeks*). Professor EYCLESHYMER, Mr. MACARTHUR, and assistants

**27-28. Gross Anatomy.**—Complete dissection of the human body: (1) Upper and lower extremities, (2) thorax and abdomen, (3) the head and neck. Functional and topographical relationships; structural variation. Lectures, recitations, and laboratory, 3 three-hour periods. *II*.

Associate Professor EMMEL, Dr. KAMPMEIER, and assistants

### Required Courses—Second Year

**31. Topographical Anatomy.**—Topography and relations of the various regions, systems, and organs of the body. Lectures and recitations; 2: laboratory; 2 three-hour periods. *I*. Assistant Professor MOODIE, Dr. MAGATH, and assistants

**Applied and Surgical Anatomy.**—(See department of surgery.)

### Optional Courses

**50. Microscopical Technic.**—Preparation of objects; injecting blood vessels and lymphatics; maceration, digestion, and corrosion; decalcification, fixation of tissues, embedding, sectioning, staining, and mounting. Mr. BOELIO

**53. Medical Illustrating.**—Drawing, including perspective; values and their adaptation in the representation of medical subjects; normal and pathological specimens, both gross and microscopic; media adapted for representing certain conditions and structures, and for special methods of reproduction, such as line work, half tone, and lithography.

Mr. JONES

**56. Embryology and Histogenesis.**—The structural changes in the principal tissues and their cellular elements during growth; changes in the structure of cells during senescence. Professor EYCLESHYMER

**59. Haematology.**—The blood and blood-forming organs: cytological structure, histogenesis, functional correlations, and current haematological problems.

Associate Professor EMMEL

### Courses Preparatory to Specialization

(Special Fee)

62. a. The Eye.
- b. The Ear.
- c. Mouth, Nose, and Throat.
- d. The Thorax and Abdomen.
- e. The Genito-Urinary System.
- f. Pelvic Anatomy.
- g. The Extremities, especially the joints and their mechanism.
- h. The Brain and Spinal Cord.

**Research.**—Physicians who desire to do research and students who have had three years of university training are invited to begin research work in this department. A reading knowledge of French and German is essential.

**65-66. Seminar.**—Critical reviews of recent anatomical literature; preparation of bibliographies and of scientific papers for publication. Presentation and discussion of the results of investigations.

## Courses for Graduates

101. **Histogenesis.**—The structural changes in tissues and their elements, which are directly correlated with normal processes, such as growth, activity, rest, fatigue, senility. *One unit.* Professor EYCLESYMER, Associate Professor EMMEL, Assistant Professor MOODIE

103. **Individual Research in Embryology and Histogenesis.**—(*One or two units*).

Professor EYCLESYMER, Associate Professor EMMEL, Assistant Professor MOODIE

## DERMATOLOGY

— — — — —, *Assistant Professor and Acting Head of the Department*

FRANCIS EUGENE SENEAR, A.B., M.D., *Instructor*

BENJAMIN BARKER BEESON, M.D., *Instructor*

## Required Courses—Fourth Year

1. **Practise.**—Illustrated. 2. *I.*

Dr. SENEAR

5. **Clinic.**—College. 1. *I.*

Dr. SENEAR

9-10. **Clinic.**—College Dispensary. The class is divided into six sections. 3 (*three weeks*). *II.*

Dr. SENEAR, Dr. BEESON

## Optional Course

53. **Pathology and Bacteriology of the Skin.**—Limited to six students.

## HYGIENE AND MEDICAL JURISPRUDENCE

— — — — —, *Professor and Head of the Department of Hygiene*

ELMER DEWITT BROTHERS, M.S., LL.B., *Lecturer in Medical Jurisprudence*

MATTHEW MILLS, LL.B., *Alternate Lecturer in Medical Jurisprudence*

## Required Courses—Third Year

2. **Public Hygiene.**—General etiology, immunity, contagious diseases, epidemiology, and preventive medicine; organization of health departments and the work of divisions of the same; vital statistics, inspection of schools and factories; sanitation; food supply and control; public welfare. Lectures; 2. *I.*

4. **Practical Hygiene.**—Visits to public institutions and plants. Laboratory and conferences; 1 three-hour period (*eight weeks*).

6. **Medical Jurisprudence.**—Lectures. 1. *I.*

Mr. BROTHERS

## LARYNGOLOGY, RHINOLOGY, OTOTOLOGY

NORVAL PIERCE, M.D., *Professor and Head of Department*

JOSEPH C BECK, M.D., *Associate Professor*

JOHN ALGERNON CAVANAUGH, M.D., *Assistant Professor*

EDWARD F GARRAGHAN, M.D., *Associate*

WALTER H THEOBALD, M.D., *Associate*

CHARLES FRANCIS YERGER, M.D., *Instructor*

## Required Courses—Third Year

5. **Practise.**—The diseases of the ear, nose, and throat. 1. *I.*

Associate Professor BECK

15. **Clinic.**—University Hospital. Diseases of the nose and throat. 1 (*eight weeks*).

Associate Professor BECK



17. **Clinic.**—Cook County Hospital. Diseases of the nose and throat. 1 (*eight weeks*).  
Associate Professor BECK

19-20. **Clinic.**—Dispensary. In sections; 3 (*three weeks*). II.

Associate Professor BECK, Assistant Professor CAVANAUGH, Dr. GARRAGHAN, Dr. THEO-  
BALD, Dr. YERGER

### Optional Course

51. **Laryngology and Rhinology.**—Clinical. Cook County Hospital. One hour a week.  
Associate Professor BECK

## MEDICINE

FREDERICK TICE, M.D., *Professor and Head of the Department*

### DIVISION OF INTERNAL MEDICINE

FREDERICK TICE, M.D., *Professor and Head of Division*

MAURICE LOUIS GOODKIND, M.D., *Professor of Clinical Medicine*

JOSEPH MCINTYRE PATTON, M.D., *Professor of Clinical Medicine*

FRANK SMITHIES, M.D., *Associate Professor of Medicine*

EDWARD LOUIS HEINTZ, Ph.G., M.D., *Associate Professor of Medicine and Clinical Medicine*

MAURICE LEWISON, M.D., *Associate Professor of Physical Diagnosis*

ARTHUR RICHARD ELLIOTT, M.D., *Associate Professor*

ROBERT MOSSER, Ph.G., M.D., *Assistant Professor of Clinical Medicine*

FRANK CHAUVET, M.D., *Assistant Professor of Physical Diagnosis*

GEORGE JOHN LORCH, Ph.G., M.D., *Associate*

ROBERT WILSON MORRIS, A.B., M.D., *Associate*

WALDEMAR EBERHARDT, B.S., M.D., *Associate*

WALTER BRADFORD METCALF, M.D., *Associate in Clinical Medicine*

FRED RAYMOND CROOKS, M.D., *Associate*

FRANKLIN S WILSON, Ph.G., M.D., *Associate in Clinical Medicine*

MAX BIESENTHAL, M.D., *Associate*

STEPHEN ROMAN PIETROWICZ, A.B., M.D., *Associate in Medicine*

ROBERT LUDWICK FURBY, M.D., *Instructor*

NATHANIEL ISADOR BASKIND, M.D., *Instructor*

ALLAN JOSEPH HRUBY, M.D., *Assistant*

BENJAMIN GOLDBERG, M.D., *Assistant*

### Required Course—Second Year

2a-2b. **Physical Diagnosis.**—(a) Lectures; 1. I. (b) Practical drill on normal subjects; given to small sections of the class. One two-hour period. I.

Associate Professor LEWISON, Assistant Professor CHAUVET

### Required Courses—Third Year

9. **Practise.**—General survey of the important diseases as a working basis preparatory for the clinical courses. Conferences and recitations; 6. II.

Associate Professor HEINTZ, Dr. LORCH, Dr. CROOKS, Dr. FURBY

15. **Clinic.**—Selected topics; University Hospital. One two-hour period. I.

Associate Professor HEINTZ

21. **Clinic.**—Cook County Hospital. One two-hour period. I.

Associate Professor HEINTZ

**23. Physical Diagnosis Clinic.**—Given to small groups, using the patients in the tuberculosis wards of the Cook County Hospital. 1. *I.*

Associate Professor LEWISON, Assistant Professor CHAUVET

**27-28. Clinic.**—Dispensary. Practical work on out-patients. Practically every variety of disease of an ambulatory nature common to the temperate zone may be seen here. In sections, 3 two-hour periods (*three weeks*). *II.*

Assistant Professor MOSSER, Dr. METCALF, Dr. WILSON

**31. Clinic.**—Selected topics; Cook County Hospital. One two-hour period. *I.*

Dr. BIESENTHAL

#### Required Courses—Fourth Year

**31-32. Practise.**—Diseases of the alimentary tract, liver, pancreas, and peritoneum; heart and lungs; kidney and blood. Lectures illustrated by pathological specimens, charts, and lantern slides; conferences; 6. *I; 3. I.*

Lectures, Professor TICE. Conferences and recitations, Dr. EBERHARDT

**35. Clinic.**—St. Luke's Hospital. Gastro-intestinal, cardio-vascular, and renal diseases. Diagnostic analysis. Collateral reading. One two-hour period. *I.*

Assistant Professor ELLIOTT

**37. Clinic.**—Selected topics; Cook County Hospital. One two-hour period. *I.*

Professor PATTON

**39. Clinic.**—Selected topics; Cook County Hospital. One two-hour period. *I.*

Professor TICE

**45. Clinic.**—Augustana Hospital. *I.*

Associate Professor SMITHIES

**47-48. Seminar.**—Work in cooperation with the departments of surgery and obstetrics. The student receives 48 hours' credit, 16 in each department, altho the work is done only in one department. The entire class is divided into three groups, and each of these again into five sub-groups. During the first semester, the groups meet informally, and abstracts are prepared and submitted for criticism. During the second semester, each group is assigned one hour in which to present its work before the entire class.

Professor TICE and assistants

#### *DIVISION OF PEDIATRICS*

JULIUS HAYES HESS, M.D., *Professor of Pediatrics and Clinical Pediatrics, and Head of the Division*

HENRY EUGENE IRISH, M.D., *Assistant Professor*

ABRAHAM LEVINSON, M.D., *Associate*

SOL MAXWELL GOLDBERGER, M.D., *Instructor*

LADISLAV STOLFA, M.D., *Assistant*

#### Required Courses—Third Year

**1. Practise and Clinic.**—Nutrition and nutritional disturbances in infancy. Lectures; clinical conferences; 1. *I.*

Assistant Professor IRISH

**4. Practise.**—Recitations. 1. *I.*

Assistant Professor IRISH

**7. Clinic.**—College. Physical diagnosis and demonstration of cases. 1. In groups; 2 (*four weeks*).

Dispensary Staff

## Required Courses—Fourth Year

11. Clinics.—(a) Michael Reese Hospital. In groups; 1 (*eight weeks*).  
Dr. LEVINSON  
(b) University Hospital. In groups; 1 (*four weeks*). Assistant Professor IRISH  
(c) Cook County Hospital. Contagious diseases. In groups; 1 (*four weeks*).  
Assistant Professor IRISH
- 15-16. Clinic.—Dispensary. In sections; 3 two-hour periods; *I, II (three weeks). II.*  
Dr. STOLFA, Dr. GOLDBERG
19. Clinic.—Cook County Hospital. One two-hour period (*eight weeks*).  
Assistant Professor IRISH

## DIVISION OF NEUROLOGY

HAROLD DOUGLAS SINGER, M.D., M.R.C.P., *Acting Head of the Division*  
EDWARD FRANKLIN LEONARD, M.D., *Assistant Professor*  
HERMAN CAMPBELL STEVENS, B.A., Ph.D., M.D., *Assistant Professor*

## Required Courses—Fourth Year

- 3-4. Clinic and Practise.—Clinico-didactic lectures and recitations. 4. *I.*  
Professor SINGER, Assistant Professor LEONARD
- 7-8. Clinic.—Dispensary. Examination and diagnosis. In sections; 3 two-hour periods (*six weeks*).  
Assistant Professor LEONARD

## DIVISION OF PSYCHIATRY

HAROLD DOUGLAS SINGER, M.D., M.R.C.P., *Professor and Head of the Division*  
CHARLES F READ, B.S., M.D., *Assistant Professor*

## Required Courses—Fourth Year

4. Practise.—Lectures and quizzes; 1 (*eight weeks*). Professor SINGER
7. Clinic.—Psychopathic Hospital of Cook County. To small sections; 1. *I.*  
Assistant Professor READ

## DIVISION OF ROENTGENOLOGY

ADOLPH HARTUNG, M.D., *Associate*

## Required Courses—Fourth Year

4. Practise and Demonstration.—College. The use of the X-ray in medicine and surgery. To small sections; 1 (*four weeks*).  
Dr. HARTUNG

## DIVISION OF HISTORY OF MEDICINE

BERNARD JOHN CIGRAND, M.S., D.D.S., *Lecturer*

## Optional Course—Fourth Year

51. History of Medicine.—Lectures; 1. *I.* Dr. CIGRAND

## OBSTETRICS AND GYNECOLOGY

CHARLES SUMNER BACON, Ph.B., M.D., *Professor of Obstetrics and Head of the Department*

## DIVISION OF OBSTETRICS

CHARLES SUMNER BACON, Ph.B., M.D., *Professor of Obstetrics and Clinical Obstetrics*  
RACHELLE S YARROS, M.D., *Associate Professor of Obstetrics and Clinical Obstetrics*

CECIL V. BACHELLÉ, M.S., M.D., *Assistant Professor of Obstetrics and Clinical Obstetrics*  
 OTTO HERMAN ROHRLACK, Ph.G., M.D., *Assistant Professor of Obstetrics and Clinical Obstetrics*

RICHARD CHARLES STEFFEN, M.D., *Associate*

JOHN WILLIAM BIRK, M.D., *Associate*

ANNIE ESTHER BARRON-HARRISON, M.D., *Instructor*

CHARLES NEWBERGER, B.S., M.D., *Instructor*

WALTER CHARLES HAMMOND, M.D., *Instructor*

EDWARD MORTON HEACOCK, M.D., *Instructor*

### Required Courses—Third Year

5-6. *Physiology of Pregnancy, Labor, the Puerperium, and the New Born Infant.*—Lectures; recitations; 2. *I. Laboratory.* To small groups, one two-hour period (*four weeks*).

Associate Professor YARROS, Dr. BIRK, Dr. NEWBERGER, Dr. HAMMOND, Dr. HEACOCK

9. *Clinic.*—University and Cook County Hospitals. Instruction at bedside and in the out-patient department. In groups. 6 (*two weeks*).

Professor BACON, Assistant Professor ROHRLACK, Dr. BARRON-HARRISON

12. *Clinic.*—University Hospital. In groups. Delivery of six parturients.

### Required Courses—Fourth Year

15-16. *Pathology of Pregnancy, Labor, and the Puerperium.*—Lectures; recitations; 3. *I.*

Professor BACON, Assistant Professor ROHRLACK, Dr. BIRK, Dr. NEWBERGER, Dr. HEACOCK, Dr. HAMMOND

(a) *Pathology of the genital tract with special reference to obstetrical pathology.* To small groups; 1 two-hour period (*four weeks*).

(b) *Manikin work.* To small groups; 1 two-hour period (*eight weeks*).

Assistant Professor BACHELLÉ, Dr. STEFFEN

19. *Clinic.*—University Hospital. To small groups, 6 (*two weeks*).

Professor BACON, Assistant Professor ROHRLACK, Dr. BARRON-HARRISON

22. *Clinic.*—University Hospital. Demonstrations; recitations, 1. *I.*

Professor BACON

25. *Clinic.*—University Hospital. To small groups. The delivery of six parturients.

26. *Clinic.*—Chicago Lying-In Hospital and Dispensary. Residence, two weeks; at least six cases.

47-48. *Seminar.*—Work done in cooperation with the departments of medicine and surgery. For this work the student receives 48 hours' credit, 16 in each department, altho the work is done only in one department. The purpose is to give the student a working knowledge of the medical literature, and to acquaint him with the methods of looking up the work which has been done on any special subject. During the first semester the groups will meet informally, and abstracts will be prepared and submitted for criticism. During the second semester each group will be assigned one hour in which to present its work before the entire class.

Professor BACON and assistants

## Optional Course

51. Pathology.—For qualified students in either the third or the fourth year.

## DIVISION OF GYNECOLOGY

—————, *Professor of Gynecology and Clinical Gynecology and Head of the Division*

JOHN MICHAEL LANG, M.D., *Assistant Professor of Clinical Gynecology*

WESLEY JOHN WOOLSTON, M.D., *Assistant Professor*

EGAN WALTER FISCHMANN, M.D., *Associate*

ALBERT JOHN SCHOENBERG, M.D., *Associate*

MATHILDA OSBORNE LICHNER, B.S., M.D., *Instructor*

LEE A JUHNKE, M.D., *Instructor*

GOLDYE HOFFMAN, M.D., *Assistant*

## Required Courses—Fourth Year

3. Practise.—Recitations; lantern slide demonstrations; exhibition of fresh and preserved pathological tissue; illustrations by charts and models. An occasional hour devoted to operative work. 2. I. Dr. FISCHMANN, Dr. SCHOENBERG

7. Clinic.—Cook County Hospital. Diagnosis, prognosis, and treatment of typical and atypical cases. Cases preliminary to operation; post-operative progress; pathological tissues. One two-hour period. I. Dr. WOOLSTON

15-16. Clinics.—Dispensary. Examinations, cases, and reports. 3 (*three weeks*). II. Assistant Professor LANG, Dr. FISCHMANN, Dr. SCHOENBERG, Dr. JUHNKE, Dr. LICHNER

## OPHTHALMOLOGY

EDWARD VALE LAPHAM BROWN, B.S., M.D., *Professor of Clinical Ophthalmology and Head of the Department*

AGNES BEULAH CUSHMAN, M.D., *Assistant*

MARGARET HEATH, *Refractionist*

## Required Course—Fourth Year

3-4. Clinic and Practise.—Dispensary. Diagnosis and treatment of the common diseases of the eye and such minor operations as general practitioners may be expected to perform. The last two weeks given in the eye ward of the Cook County Hospital and at the Illinois Charitable Eye and Ear Infirmary. 3 two-hour periods (*eight weeks*).

Professor BROWN and assistants

## PATHOLOGY AND BACTERIOLOGY

DAVID JOHN DAVIS, B.S., M.D., Ph.D., *Professor and Head of the Department*

—————, *Assistant Professor*

JOSIAH JOHN MOORE, B.S., M.S., M.D., *Associate*

THOMAS HARRIS BOUGHTON, M.S., M.D., *Associate*

JOHN NUZUM, B.S., M.D., *Associate*

HORRY MATTHEW JONES, B.S., Ph.D., *Instructor*

AMY WEEDON, *Chief Technician*

MRS. FRED PICKOFF, *Technician*

NELLIE PARKINSON, *Technician*

**Required Courses—Second Year**

**11. General Bacteriology and Protozoology.**—Pathogenic bacteria and protozoa. Immunity. Lectures and demonstrations, 3; laboratory, 2 three-hour periods. *I.*

Professor DAVIS, Dr. MOORE, Dr. JONES, and assistants

**17a-18. General Pathology and Pathological Histology.**—General pathology, gross and microscopic study of fresh and preserved pathological material. Lectures, recitations, and demonstrations, 2; laboratory, 3 two-hour periods (*twenty-four weeks*).

Dr. MOORE, Dr. BOUGHTON, and assistants

**22. Clinical Pathology.**—Microscopic, bacteriologic, and chemical examination of blood, urine, sputum, faeces, stomach contents, exudates, etc. 8 (*eight weeks*). Dr. MOORE

**Required Courses—Third Year**

**26. Special Pathology.**—Gross and microscopic examination of organs, post-mortem bacteriology, and experimental pathology. 2 two-hour periods. *I.*

Professor DAVIS and assistants

**30. Autopsies.**—Cook County Hospital. Sixteen autopsies. One two-hour period. *I.*

**Optional Courses**

**50. Advanced Work and Research in Bacteriology.**—Limited to properly qualified students.

Professor DAVIS

**51. Advanced Work in Special Diagnostic Laboratory Methods.**—Limited to a few qualified students.

Dr. MOORE

**55. Diagnosis of Tumors.**—Open to students who have had courses in general and special pathology.

Dr. BOUGHTON

**Courses for Graduates**

**101. Advanced Pathogenesis.**—Etiology and pathogenesis of certain diseases; lower animals in the transmission of human disease. *One unit.*

Professor DAVIS

**105. Individual Research.**—*One or two units.*

Professor DAVIS

**MATERIA MEDICA, PHARMACOLOGY, AND THERAPEUTICS**

HUGH ALISTER MCGUIGAN, Ph.D., M.D., *Professor*

—————, *Assistant Professor*

ROBERT WOOD KEETON, M.S., M.D., *Instructor*

CLYDE MILTON SNOW, Ph.G., *Instructor in Pharmacy*

EMRY G HYATT, B.S., *Assistant*

JOHN EMANUEL NILSON, *Assistant in Non-Pharmaceutical Therapeutics*

JOHN A HIGGINS, *Mechanician*

HARRY JOSEPH SCHLECK, *Technician*

**General Statement**

The object of the work is to give the student theoretical and practical training in the principles and practise of modern materia medica, pharmacology, and therapeutics. In the laboratory, opportunity is given for a first hand acquaintance with drugs, their actions, preparations, uses and methods of prescribing. In non-pharmaceutical therapeutics the physiological effects of measures other than drugs are studied, and the methods of application in therapeutics demonstrated.

Required Courses—Second Year

4. **Materia Medica, Pharmacy, and Prescription Writing.**—Conference; *I.* Laboratory, one two-hour period; *I.*  
Mr. SNOW
6. **Pharmacodynamics.**—Laboratory, one three-hour period. *I.*  
Professor McGUIGAN and assistants
9. **Toxicology and the Chemistry of Drugs.**—One two-hour period. *I.*  
Professor McGUIGAN and assistants
14. **Pharmacology, Materia Medica, and Prescriptions.**—3. *II.*  
Professor McGUIGAN

Required Course—Third Year

20. **Therapeutics and Prescription Writing.**—2. *I.*  
Professor McGUIGAN, Dr. KEETON

Optional Course

13. **Non-Pharmaceutical Therapeutics, Massage, Hydrotherapy, and Electrotherapy.**—  
1. *II.* Mr. NILSON

Courses for Graduates

101. **Advanced Pharmacodynamics.**—Laboratory work. *One unit.*  
Professor McGUIGAN
103. **Research Work in Pharmacodynamics.**—*One or two units.*  
Professor McGUIGAN

PHYSIOLOGY AND PHYSIOLOGICAL CHEMISTRY

GEORGE PETER DREYER, A.B., Ph.D., *Professor and Head of the Department*  
WILLIAM HENRY WELKER, A.C., Ph.D., *Assistant Professor of Physiological Chemistry*  
WILLIAM JOHN CROZIER, B.S., A.M., Ph.D., *Assistant Professor of Physiology*  
PAUL GERHARD ALBRECHT, Ph.D., *Associate in Physiological Chemistry*  
—————, *Instructor in Physiological Chemistry*  
JAMES TOBIAS GROOT, B.S., *Assistant in Physiology*  
WEBSTER BARCLAY ROSE, A.B., *Assistant in Physiological Chemistry*  
JOHN A HIGGINS, *Technical Assistant and Mechanician in Physiology*  
MARIE FLINN, *Technical Assistant in Chemistry*

Required Courses—First Year

20. **Physiology.**—Blood and lymph, muscle and nerve, circulation, and respiration. Lectures, recitations, and demonstrations, 3; laboratory, 2 three-hour periods. *I.*  
Professor DREYER and assistants
21. **Organic Chemistry.**—General organic chemistry; fats, proteins, and carbohydrates. Lectures, demonstrations, and conferences, 2; laboratory, 2 three-hour periods. *I.*  
Dr. ALBRECHT and assistants
24. **Physiological Chemistry and Toxicology.**—Lectures, demonstrations, and conferences, 2; laboratory, 2 three-hour periods. *I.*  
Assistant Professor WELKER and assistants

*Prerequisite:* Course 21 or its equivalent.

**Required Course—Second Year**

**25. Physiology.**—Digestion; secretion; metabolism; the special senses; the central nervous system. Lectures, recitations, and demonstrations, 4; laboratory, one four-hour period. *I.* Professor DREYER and assistants

**Optional Courses**

**51. Advanced Laboratory Work.**—Physiological demonstration and research; graphic methods.

**53. Quantitative Urinary Analysis.**—Lecture, one hour a week; laboratory, six hours a week. *I.* Assistant Professor WELKER, Dr. ALBRECHT

**54. Sanitary Chemistry.**—Water and sewage analysis; purification. Lecture, one hour a week; laboratory, six hours a week. *I.* Assistant Professor WELKER

**59. Food Analysis.**—Composition, adulteration, preservation. Lecture, one hour a week; laboratory, six hours a week. *I.* Dr. ALBRECHT

**Research.**—The laboratories are open to persons with the requisite scientific training for the conduct of original investigations under the direction of the members of the staff.

**63-64. Seminar.**—The members of the teaching staff and all advanced workers in the department meet weekly to discuss results of recent researches in physiology and biological chemistry.

*Prerequisites for optional courses.* In physiology courses 20 and 25, and in chemistry courses 21 and 24.

**Courses for Graduates**

**103. Advanced Biological Chemistry.**—Biochemical methods of research; biological colloids; enzyme action; metabolism. *One or two units.* Assistant Professor WELKER

**107. Biochemical Research.**—*One or two units.* Assistant Professor WELKER

**SURGERY**

CHARLES DAVISON, A.M., M.D., *Professor and Head of the Department*

***DIVISION OF GENERAL SURGERY***

CHARLES DAVISON, A.M., M.D., *Professor of Surgery and Clinical Surgery*

ALBERT JOHN OCHSNER, B.S., M.D., *Professor of Surgery and Clinical Surgery*

WILLIAM McINTIRE HARSHA, B.S., B.A., M.D., *Professor of Surgery and Clinical Surgery*

CHARLES EDWARD HUMISTON, M.D., *Professor of Clinical Surgery*

GEORGE FARNSWORTH THOMPSON, B.S., M.D., *Associate Professor of Surgery and Clinical Surgery*

FRANK DONALD MOORE, M.D., *Assistant Professor of Surgery and Clinical Surgery*

JOHN ROSS HARGER, B.S., M.D., *Assistant Professor of Surgery*

WESLEY JOHN WOOLSTON, M.D., *Assistant Professor of Clinical Surgery*

KARL ALBERT MEYER, M.D., *Assistant Professor of Clinical Surgery*

ARRIE BAMBERGER, M.D., *Associate*

RAYMOND McNEALY, M.D., *Associate*

OSCAR EUGENE NADEAU, B.S., M.D., *Associate in Surgery*

HENRY LESTER BAKER, M.D., *Instructor*

GEORGE WASHINGTON POST, B.S., A.M., M.D., *Instructor in Clinical Surgery*

MAX MEYEROVITZ, M.D., *Instructor in Clinical Surgery*

LYNDON HARRIS, M.D., *Assistant in Clinical Surgery*



## Required Courses—Third Year

3-4. **Practise.**—Surgery and surgical pathology. Conferences; recitations. In sections; 2 one-hour periods; *II*.  
Dr. PHIFER, Dr. BAKER, Dr. KEETON

7-8. **Clinic.**—Dispensary. Diagnosis, bandaging, surgical dressings and appliances. 3 two-hour periods (*three weeks*). *II*.

Assistant Professor HARGER, Dr. BAMBERGER, Dr. POST, Dr. HARRIS

9. **Clinic.**—Cook County Hospital. One two-hour period; *I*.

Associate Professor THOMPSON, Assistant Professor LOUNSBURY, Assistant Professor WOOLSTON

11. **Clinic.**—Cook County Hospital. One two-hour period. *I*.

Professor HUMISTON, Dr. BAMBERGER

19. **Anesthetics.**—Practical demonstrations to individual students in the administration of anesthetics at Cook County Hospital. Conferences; recitations. To small sections (*four weeks*).  
Assistant Professor MEYER

## Required Courses—Fourth Year

23-24. **Practise.**—Regional surgery. Conferences; recitations. In sections; 2. *II*.  
Associate Professor THOMPSON, Assistant Professor MOORE, Assistant Professor DANFORTH, Assistant Professor HARGER

29. **Clinic.**—University Hospital. One two-hour period. *I*.

Professor DAVISON, Dr. MEYEROVITZ

31. **Clinic.**—St. Mary's or Augustana Hospital. One two-hour period. *I*.

Professor OCHSNER

33. **Clinic.**—St. Luke's Hospital. One two-hour period. *I*.

Professor HARSHA

35. **Clinic.**—Cook County Hospital. One two-hour period. *I*.

Associate Professor THOMPSON

37a. **Clinic.**—Cook County Hospital. Bedside conference in surgical diagnosis. 1. *I*.  
Professor DAVISON, Assistant Professor MEYER

37b. **Clinic.**—Cook County Hospital. *Individual Bedside Instruction in Surgical Diagnosis*. Record writing, symptoms, physical examination, roentgenogram interpretation, laboratory examination of materials from the patient secured in the ward, operating room, or morgue. One two-hour period. *I*.  
Professor DAVISON and assistants

41. **Surgical Pathology.**—Laboratory. In sections; 2 (*eight weeks*). Dr. NADEAU

43-44. **Surgical Seminar.**—Work done in cooperation with the departments of medicine and obstetrics. For this work the student receives 48 hours' credit, 16 in each department, altho the work is done in one department only. The purpose is to give the student a working knowledge of the medical literature, and to acquaint him with the methods of looking up the work which has been done on any special subject. During the first semester, the groups will meet only informally, and abstracts will be prepared and submitted for criticism. During the second semester, each group will be assigned one hour in which to present its work before the entire class.

Professor DAVISON and assistants

## DIVISION OF ORTHOPEDIC SURGERY

—————, *Professor and Head of the Division*

CHARLES MAYOR JACOBS, M.D., *Associate Professor of Clinical Surgery (Orthopedic)*

## Required Courses—Third Year

3. Practise.—1. *I.*7. Clinic.—University Hospital or Home for Destitute Crippled Children. 1. *I.*11. Clinic.—Cook County Hospital. 1. *I.* Associate Professor JACOBS15-16. Clinic.—Dispensary. In sections; 3 two-hour periods (*three weeks*). *II.*

## DIVISION OF GENITO-URINARY SURGERY

VICTOR DARWIN LESPINASSE, M.D., *Associate Professor*CHARLES MORGAN MCKENNA, M.D., *Assistant Professor*HARRY JEROME SMEJKAL, M.D., *Instructor*

## Required Courses—Third Year

3. Practise.—Conferences; recitations. In sections; 1. *I.*

Assistant Professor MCKENNA, Dr. SMEJKAL

7-8. Clinic.—Dispensary. In sections; 3 two-hour periods (*three weeks*). *II.*

Assistant Professor MCKENNA, Dr. SMEJKAL

## Required Courses—Fourth Year

11. Clinic.—Cook County Hospital. Individual instruction in the diagnosis of genito-urinary diseases, including cystoscopy, catheterization of the ureters, interpretation of roentgenograms and of chemical and microscopical urinalyses. In sections; 2 two-hour periods (*three weeks*).

14. Clinic.—St. Joseph's Hospital. In sections; one two-hour period (*four weeks*).

Assistant Professor MCKENNA

## DIVISION OF OPERATIVE SURGERY

BENJAMIN FRANKLIN LOUNSBURY, B.L., M.D., *Assistant Professor of Operative Surgery*ARCHIE JAMES GRAHAM, B.S., M.D., *Instructor*

## Required Course—Second Year

4. Operative Surgery.—Operative surgery on the cadaver and on animals. In small sections; 2. *I.*

Assistant Professor LOUNSBURY, Dr. GRAHAM

## SUMMARY OF HOURS

## First Year

Subjects	First Semester		Second Semester		Total
	Didactic	Laboratory	Didactic	Laboratory	
ANATOMY:					
Gross.....	32	112	32	112	288
Microscopic.....	32	160	32	64	288
CHEMISTRY:					
Organic.....	32	96	....	....	128
Physiological.....	....	....	32	96	128
PHYSIOLOGY.....	....	....	48	96	144
	96	368	144	368	976

## Second Year

Subjects	First Semester		Second Semester		Total
	Didactic	Laboratory	Didactic	Laboratory	
ANATOMY:					
Topographical.....	32	96	....	....	128
Bacteriology.....	48	96	....	....	144
Hygiene.....	....	....	32	....	32
Laboratory Diagnosis.....	....	....	....	64	64
Non-Pharmaceutical Therapeutics.....	....	....	48	16	64
Pharmacology.....	....	....	32	32	64
Prescription Writing and Pharmacy.....	....	16	....	....	16
Pathology.....	32	96	16	48	192
Physical Diagnosis.....	....	....	16	32	48
Physiology.....	32	96	....	....	128
Surgery (Operative).....	....	....	....	48	48
	144	400	144	240	928

## Third Year

Subjects	First Semester			Second Semester			Total
	Didactic	Clinical and Laboratory	Dispensary	Didactic	Clinical and Laboratory	Dispensary	
Autopsies.....	....	....	....	....	32	....	32
Laryngology and Rhinology.....	16	16	9	....	....	9	50
Internal Medicine.....	64	40	18	64	40	18	244
Medical Jurisprudence.....	....	....	....	16	....	....	16
Pathology.....	....	....	....	....	64	....	64
Pediatrics.....	16	....	....	16	16	....	48
Pharmacology and Therapeutics.....	32	48	....	32	....	....	112
Obstetrics.....	32	....	....	32	20	....	84
Otology.....	....	....	....	6	4	....	10
General Surgery.....	32	32	18	32	36	18	168
Orthopedic Surgery.....	16	16	18	....	16	18	84
Genito-Urinary Surgery.....	16	....	18	....	....	18	52
	224	152	81	198	228	81	964

## Fourth Year

Subjects	First Semester			Second Semester			Total
	Didactic	Clinical and Laboratory	Dispensary	Didactic	Clinical and Laboratory	Dispensary	
Dermatology.....	32	16	9	....	....	9	66
Genito-Urinary Surgery.....	....	4	....	....	16	....	20
Gynecology.....	32	32	9	....	20	9	102
Hygiene.....	....	....	....	....	24	....	24
Medicine.....	96	50	....	48	66	....	260
Neurology.....	16	16	18	16	16	18	100
Obstetrics.....	48	30	....	....	34	....	112
Ophthalmology.....	12	16	18	....	....	18	64
Pediatrics.....	....	32	18	....	12	18	80
Psychiatry.....	....	....	....	16	8	....	24
Roentgenology.....	....	....	....	....	4	....	4
General Surgery.....	32	72	....	32	88	....	224
Surgical Pathology.....	....	....	....	....	16	....	16
	268	268	72	112	304	72	1096

First year.....	976
Second year.....	928
Third year.....	964
Fourth year.....	1096
Total.....	3964

## First Year

Subjects	Summer Quadri- mester June 3—Sept. 28, 1918	First Quarter Oct. 1—Dec. 21, Extended to Feb. 1
ANATOMY:		
Gross.....	96	174
Microscopic.....	256	....
CHEMISTRY:		
Organic.....	....	180
Physiological.....	....	180
Bacteriology.....	144	....
OPTIONAL:		
Anatomy or Chemistry.....	....	36
Total.....	496	390

## Second Year

Subjects	Summer Quadri- mester June 3—Sept. 28, 1918	First Quarter, Oct. 1—Dec. 21, Extended to Feb. 1	
		Students who had finished the work of the summer quadrimester	Students enter- ing this class
ANATOMY:			
Topographical.....	128	.....	.....
Bacteriology.....	144	.....	.....
Clinical Pathology.....	.....	96	.....
Pharmacology.....	112	.....	112
Pathology.....	.....	136	136
Physical Diagnosis.....	48	.....	.....
Physiology.....	.....	162	162
Surgery (Operative).....	32	.....	.....
OPTIONAL SUBJECTS:			
Required hours.....	.....	38	38
Total.....	464	432	448

## Third Year

Subjects	Summer Quadri- mester June 3—Sept. 28, 1918	First Quarter, Oct. 1—Dec. 21, Extended to Feb. 1	
		Students who had finished the work of the summer quadrimester	Students enter- ing this class
Laryngology, Rhinology, and Otology...	50	.....	48
Internal Medicine.....	160	156	112
Pathology, including autopsies.....	96	.....	90
Pediatrics.....	32	.....	.....
Pharmacology and Therapeutics.....	32	.....	.....
Obstetrics.....	.....	66	66
General Surgery.....	82	96	82
Orthopedic Surgery.....	32	66	.....
Genito-Urinary Surgery.....	16	.....	.....
<b>OPTIONAL SUBJECTS:</b>			
Required hours.....	.....	32	32
Total.....	500	416	430

## Fourth Year

Subjects	Summer Quadri- mester June 3—Sept. 28, 1918	Second Quadri- mester Oct. 1, 1918— Feb. 1, 1919
Dermatology.....	50	16
Genito-Urinary Surgery.....	20	.....
Gynecology.....	.....	64
Hygiene.....	24	.....
Medicine.....	144	112
Neurology and Psychiatry.....	.....	124
Obstetrics.....	94	16
Ophthalmology.....	48	56
Pediatrics.....	62	.....
Röntgenology.....	4	.....
General Surgery.....	120	120
Surgical Pathology.....	16	16
Gynecology.....	.....	18
Total.....	582	542

# THE COLLEGE OF DENTISTRY

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(For the *faculty* of the College of Dentistry, see page 37; for a description of the *building*, see page 57; for *fees*, see page 107.)

## LOCATION

The College is situated on the corner of Harrison and Honore streets in Chicago, opposite the Cook County Hospital, in the center of the clinical field of Chicago. Adjoining the school on the west is the West Side Hospital, and on the north the College of Medicine of the University of Illinois.

## INFIRMARY

The infirmary occupies the top floor. The equipment includes chairs of improved type with fountain cuspidors and instrument brackets attached. Each chair is furnished with an electric engine, electric light, compressed air, gas and a stand for instruments. A hot-water sterilizer with compartments for each student's instruments is continuously in operation. For the year ending January 1, 1919, 5,212 patients were treated in the infirmary.

## LIBRARY

The library is housed with the Quine Library of the College of Medicine in the medical building adjoining. It is open from 9 a. m. to 5 p. m. daily during the school year, with a librarian in attendance. Through the courtesy of Mrs. Margaret Cook, wife of the late Dr. George Washington Cook, former Dean of the College of Dentistry, the dental library belonging to his estate, comprising two hundred volumes, besides unbound volumes of dental journals, has been given to the College. The principal dental journals are received regularly.

## ADMISSION

An applicant for admission to the College of Dentistry must be at least 18 years of age. Women are admitted on the same terms as men.

### High-School Graduation

A candidate for admission by *certificate* must be a *graduate* of an accredited high school or other accredited school, with fifteen units in acceptable subjects. By acceptable subjects are meant the subjects included in Lists A, B, and C, pages 66-68; not more than three units may be chosen from List C.

An applicant *who has not been graduated* from an accredited school must pass entrance examinations in the following subjects, amounting to 5 units:

English composition.....	1 unit
Algebra.....	1 unit
Additional subjects to be designated by the university authorities.....	3 units
Total.....	5 units

The remaining 10 units necessary to make up the 15 units required for admission may also be made in entrance examinations or may be offered by certificate from an accredited school.

### Prescribed Subjects

The fifteen units required for the College of Dentistry must include the following prescribed subjects:

English.....	3 units
Algebra.....	1 unit
Plane geometry.....	1 unit
Physics, with laboratory work.....	1 unit
Total.....	<u>6 units</u>

### Admission with Deficiency in Physics

A student who is a graduate of an accredited high school with 15 units in acceptable subjects, including 3 in English, 1 in algebra, 1 in plane geometry, and 1 in *laboratory science other than physics*, may be admitted with a deficiency of one unit in physics. Such a student must remove this deficiency before he may register for his second year in the College of Dentistry.

### Methods of Admission

Entrance credits will be accepted by *certificate* from the following sources:

- (1) From high schools and academies in the State of Illinois which are accredited to the University of Illinois.
- (2) From schools accredited by the North Central Association of Colleges and Secondary Schools.
- (3) From schools accredited to the state universities which are included in the membership of the North Central Association of Colleges and Secondary Schools.
- (4) From high schools and academies registered by the Regents of the University of the State of New York.
- (5) From Schools approved by the New England College Entrance Certificate Board.
- (6) From the state normal schools of Illinois and other normal schools having equal requirements for graduation.

Entrance credits may be made by *examination*:

- (1) In the examinations conducted by the Registrar of the University at the University in Urbana in January, July, and September of each year. For program see pages 73-75.
- (2) In the examinations conducted by the Registrar of the University at the College of Dentistry in September of each year.
- (3) In the examinations conducted in June of each year by the College Entrance Examination Board. For program see page 70.
- (4) In the examinations conducted by the Regents of the University of the State of New York.

### CONDITIONS

No student will be admitted to the College of Dentistry with less than 15 units; but a student who offers 15 units in acceptable subjects but is deficient not to exceed one unit in one of the prescribed subjects (English, mathematics, physics) may be admitted, subject to the requirement that the deficiency must be removed before he can be permitted to register for his second year in the College.

Applicants for admission to the senior classes of the College of Dentistry in October, 1918, were required to present a certificate of graduation from an accredited high school, or an equivalent; which equivalent is interpreted to mean *fifteen units<sup>1</sup> of preparatory work in an accredited high school or academy or a state normal school*.

No "conditions" were permitted; the full 15 units were required.

### ADMISSION TO ADVANCED STANDING

Students who can comply with the requirements for admission to the University of Illinois, and who have studied dentistry in any college accredited to the University of

<sup>1</sup> For definition of a unit, see footnote, page 66.

Illinois for not less than one year, may be admitted to advanced standing. Such students, however, will be required to comply with all the conditions of the curriculum of the College of Dentistry.

Graduates of colleges of medicine accredited to the University of Illinois may be admitted to the College of Dentistry and given credit for one year in time and for all satisfactorily completed courses which are required by the College of Dentistry.

Students holding credits other than those listed above should communicate with the Dean for further information.

### **CURRICULUMS**

(1) Three-year curriculum. The senior course only was offered under the three-year curriculum.

(2) Four-year curriculum. Required in 1918-19. Registration closed October 10, 1918. Degree of Doctor of Dental Surgery conferred on successful completion of full four-year curriculum.

(3) Combined curriculum in science and dentistry, leading to the degrees of Bachelor of Science and Doctor of Dental Surgery in six years.

Students may be admitted to the regular curriculum only during the first ten days of the first semester. Students who desire to pursue special studies may be received at any time.

### **REQUIREMENTS FOR GRADUATION**

The degree of Doctor of Dental Surgery will be conferred on students who have completed the curriculum, attended the required time, and passed satisfactorily final examinations. To be eligible for the degree, the student must be twenty-one years of age, must possess a good moral character, and must have paid all fees.

The monthly report of attendance, and the standing of students in recitations, laboratory work, and infirmary practise, both operative and prosthetic, are considered in making up the rating of final examinations.

### **GRADUATION WITH THESIS**

Students may become candidates for thesis honors through meritorious work. "Graduation with Thesis" is awarded on the presentation of a satisfactory scientific essay.

### **HONORARY RESEARCH ASSISTANTS**

Students may, during the last year of their course, be permitted to pursue advanced work in a department, provided, first, that they have shown special aptitude along this line; and, second, that their previous work has been of a sufficiently high grade. If at the end of the last year's work the student's application and attainment is regarded as of a sufficiently high character, an honorary research assistantship may be awarded.

### **LICENSE FOR PRACTISE IN ENGLAND**

On the recommendation of the Board of Examiners in Dental Surgery, the Council of the Royal College of Surgeons, in London, has added the College of Dentistry of the University of Illinois to the list of dental schools recognized by the College. This recognition implies that the Royal College of Surgeons will exempt graduates in dental surgery of the University of Illinois from the Preliminary Science Examination for the License in Dental Surgery, and will accept such parts of the curriculum for the License as are completed in the College of Dentistry of the University of Illinois toward the curriculum of the study required for a license.

# DESCRIPTION OF COURSES IN DENTISTRY<sup>1</sup>

This description includes the courses of the four years of the new curriculum and those of the junior and senior years of the former three-year curriculum.

## RHETORIC

FRANK HURBURN O'HARA, Ph.B., *Instructor*

### Courses of the New Four-Year Curriculum

#### Required Course—First Year

1-2<sup>1</sup>. **Rhetoric and Themes.**—Short themes; preparation of papers on scientific subjects; public speaking; debate; general reading. 3; *I, II*. Mr. O'HARA

**Advanced Courses.**—Work in composition and rhetoric conducted by individual consultations and occasional meetings with advanced classes, the written work in other departments forming the chief basis of discussion. Mr. O'HARA

## TECHNICAL DRAWING

LEO HEIN, *Instructor*

### Course of the New Four-Year Curriculum

#### Required Course—First Year

1. **Technical Drawing.**—Theoretical and practical graphics, the reading and making of working plans. Projections, sketching, lettering, conventions, renderings, and translations. 2 two-and-a-half hour periods. *I*. Mr. HEIN

## ANATOMY, HISTOLOGY, EMBRYOLOGY, ZOOLOGY

ALBERT CHAUNCEY EYCLESYMER, B.S., M.D., Ph.D., *Professor and Head of the Department*

FREDERICK BOGUE NOYES, A.B., D.D.S., *Professor of Histology*

VICTOR EMANUEL EMMEL, B.S., M.S., Ph.D., *Associate Professor of Anatomy*

ROY LEE MOODIE, A.B., Ph.D., *Assistant Professor of Anatomy*

ARTHUR REUBEN COOPER, B.S., Ph.D., *Instructor in Zoology*

THOMAS BYRD MAGATH, Ph.B., M.S., Ph.D., *Instructor in Anatomy*

LOUIS N BOELIO, *Assistant in Anatomy*

HARRY ARMSTRONG, *Technician*

### Courses of the New Four-Year Curriculum

#### Required Courses—First Year

3. **General Zoology.**—Animal biology, structure; function, interrelations, origin, and development of animal life. Lectures, quizzes, 3; laboratory, 2 three-hour periods. *I*. Dr. COOPER

4. **Vertebrate Zoology and Comparative Anatomy.**—The Chordata; anatomy of systems of organs considered in respect to their function, ontogeny, and evolution in the vertebrate series; types of the chordata; mammalian splanchnology; vertebrate embryology. Lectures, quizzes, 3; laboratory, 2 three-hour periods; *II*. Dr. COOPER

<sup>1</sup> The course numbers are indicated by Arabic numerals preceding the captions. Unless otherwise specifically stated, the Arabic numerals following the description of courses indicate the number of one-hour periods a week in each subject. The first and second semesters are indicated by the Roman numerals *I* and *II*, respectively.



**8. General Histology.**—Cell structure and function; cells and intercellular substances and tissues; elementary tissues; histology of the organ of the circulatory systems; the alimentary tract and the glands connected with it; the urinary and the respiratory systems; skin, nails, and hair. Lecture and quiz, 2; laboratory, 2 two-and-a-half-hour-periods. *II.*

Professor EYCLESHEYMER, Mr. BOELIO

### Required Courses—Second Year

**11. Gross Anatomy.**—Complete dissection of the head and neck. Lectures, demonstrations, recitations and laboratory, 2 three-hour periods. *I.*

Associate Professor EMMEL, Dr. MAGATH

**15. Dental Histology and Embryology.**—Tissues of the teeth, supporting tissues; tissues of the oral cavity; enamel; operative procedures and preparation of cavity walls; embryology of the teeth, mouth, and jaws. Lecture or quiz, 1; laboratory, 2 two-and-a-half-hour periods. *I.*

Professor NOYES

**16. Topographical Anatomy.**—The head and neck by means of serial sections; topography of organs and structures. Lectures; demonstrations; recitations; laboratory, 2 three-hour periods. *II.*

Assistant Professor MOODIE, Dr. MAGATH

## CHEMISTRY AND METALLURGY

WILLIAM HENRY WELKER, A.C., Ph.D., *Assistant Professor*

PAUL GERHARD ALBRECHT, Ph.D., *Associate*

—————, *Instructor*

WEBSTER BARCLAY ROSE, A.B., *Assistant*

EMMONS SYLVESTER COE, A.B., *Student Assistant*

MARIE FLINN, *Technical Assistant*

The instruction in chemistry is given in the laboratories in the Medical building.

### Courses of the New Four-Year Curriculum

#### Required Courses—First Year

**3. General Inorganic Chemistry.**—Metals and non-metals. Lectures and recitations, 4; laboratory, 2 three-hour periods. *I.*

Assistant Professor WELKER and assistants

**6. Qualitative Analysis.**—The important metals and acids. Lecture or recitation, 1; laboratory, 2 two-and-a-half-hour periods. *II.*

Assistant Professor WELKER and assistants

#### Required Courses—Second Year

**9. Organic Chemistry.**—Biological chemistry; fats, proteins, carbohydrates. Lectures, demonstrations, and conferences, 2; laboratory, 2 three-hour periods. *I.*

Dr. ALBRECHT and assistants

**12. Physiological Chemistry.**—Lectures, demonstrations, and conferences, 2; laboratory, 2 two-and-a-half-hour periods. *II.*

Dr. ALBRECHT and assistants

*Prerequisite:* Course 9 or its equivalent.

#### Required Course—Third Year

**15. Metallurgy.**—Extraction and refining of metals used in dentistry; physical properties. Analysis of ores, alloys, solders, and cements; refining of gold, silver and tin. Preparation of alloys and solders. Lecture or recitation, 2; laboratory, 1 four-hour period. *I.*

Assistant Professor WELKER and assistants

## Optional Course

**51. Metallurgy.**—Advanced course, open to students who have completed satisfactory courses in inorganic chemistry, qualitative analysis, and metallurgy.

Assistant Professor **WELKER**

**Research.**—The laboratories are open to persons with the requisite scientific training for the conduct of original investigation under the direction of a member of the staff.

## PHYSIOLOGY

**GEORGE PETER DREYER**, A.B., Ph.D., *Professor of Physiology and Physiological Chemistry*

**WILLIAM JOHN CROZIER**, B.S., A.M., Ph.D., *Assistant Professor*

**JAMES TOBIAS GROOT**, B.S., *Assistant*

**JOHN A HIGGINS**, *Technical Assistant and Mechanician*

## Courses of the New Four-Year Curriculum

## Required Course—Third Year

**1-2. Human Physiology.**—Lectures, recitations, and demonstrations, 4; laboratory, 2 three-hour periods. *I.* Lectures, recitations and demonstrations, 4; laboratory, 2 two-and-one-half-hour periods. Professor **DREYER**, Assistant Professor **CROZIER**, Mr. **GROOT**

## PATHOLOGY AND BACTERIOLOGY

**DAVID JOHN DAVIS**, B.S., M.D., Ph.D., *Professor and Head of the Department*

**JOSIAH JOHN MOORE**, B.S., M.D., M.S., *Associate in Pathology*

**THOMAS HARRIS BOUGHTON**, M.S., M.D., *Associate in Pathology*

**JOHN NUZUM**, B.S., M.D., *Associate in Pathology and Bacteriology*

**HORRY MATTHEW JONES**, B.S., Ph.D., *Instructor*

**AMY WEEDON**, *Chief Technician*

**MRS. FRED PICKOFF**, *Technician*

**NELLIE PARKINSON**, *Technician*

## Course of the New Four-Year Curriculum

## Required Course—Second Year

**4. General Bacteriology.**—Sterilization; disinfection; culture media; morphology; pathogens; disease; immunity; vaccines; hygiene. Lectures, recitations, and demonstrations, 2; laboratory, 2 three-hour periods. *II.*

Dr. **BOUGHTON**, Dr. **JONES**, and assistants

## Optional Course

**51. Advanced Laboratory and Research Work in Bacteriology.**—Open to a limited number of qualified students. Hours to be arranged. Dr. **BOUGHTON**

## Course of the New Four-Year Curriculum

## Required Course—Third Year

**7. General Pathology.**—Circulatory disturbances, retrogressive and progressive changes, inflammation, tumors, and special pathology of important organs of the body. Gross specimens, fresh and preserved. Attendance on autopsies required in the second half of the semester. Lectures, recitations, and demonstrations, 3; laboratory, 2 two-and-a-half-hour periods; *I.*

Dr. **BOUGHTON**, Dr. **JONES**, and assistants

## OPERATIVE DENTISTRY

DONALD MACKEY GALLIE, D.D.S., *Professor and Head of the Department*

LOUIS E BAKE, D.D.S., *Associate Professor*

JOHN C MCGUIRE, D.D.S., *Superintendent of Infirmary*

WILLIAM IRA WILLIAMS, D.D.S., *Assistant Professor*

GEORGE LESTER WEIR, D.D.S., *Instructor*

## Courses of the New Four-Year Curriculum

## Required Course—First Year

**3. Operative Dentistry; Dental Anatomy and Nomenclature.**—Modeling of tooth forms in clay; free-hand drawing of tooth surfaces. Lecture or recitation, 1; laboratory, 2 three-hour periods. *I.*

Associate Professor BAKE, Assistant Professor WILLIAMS, Dr. WEIR

## Required Course—Second Year

**11-12. Operative Dentistry.**—Carving of tooth forms in bone and ivory; instrument making and use; dissection of pulp chambers and root canals in natural teeth; cavity preparation in bone forms. Lecture, 1; laboratory, 2 two-and-a-half-hour periods. *I, II.*

Assistant Professor WILLIAMS, Dr. WEIR

## Required Courses—Third Year

**15-16. Operative Dentistry.**—Cavity nomenclature and preparation; filling materials; inlay technic, both gold and porcelain; chair positions; the rubber dam; clamps, wedges, and separator; treating of root canals. Lecture, 1; laboratory, 2 two-and-a-half-hour periods. *I, II.*

Professor GALLIE, Assistant Professor WILLIAMS, Dr. WEIR

**18. Infirmary Clinic: Practical Operative Dentistry.**—256 hours,<sup>1</sup> 16 hours a week. *II.* Professor GALLIE, Associate Professor BAKE, Assistant Professor WILLIAMS, Dr. WEIR

## Required Courses—Fourth Year

**21-22. Operative Dentistry.**—Management of patients, special cases, children's teeth. Erosion, atrophy, and abrasion. Office equipment and management. Lecture or recitation, 1. *I, II.*

Professor GALLIE

**24-26. Infirmary Clinic: Practical Operative Dentistry.**—1,024 hours,<sup>1</sup> 32 hours a week. *I, II.*

Professor GALLIE and assistants

## Courses of the Three-Year Curriculum

## Required Courses—Senior Year

**X-27-28. Operative Dentistry.**—Lecture, 1. *I, II.*

Professor GALLIE

**X-31-32. Infirmary Clinic: Practical Operative Dentistry.**—1,024 hours,<sup>1</sup> 32 hours a week, *I, II.*

Professor GALLIE and assistants

## PROSTHETIC DENTISTRY

GEORGE WALTER DITTMAR, D.D.S., *Professor and Head of the Department*

SOLOMON PERRY STARR, D.D.S., *Associate Professor*

ROSCOE WINTERS UPP, D.D.S., *Instructor*

BURNE OLIN SIPPY, A.B., D.D.S., *Instructor*

JOHN S GRIMSON, D.D.S., *Instructor*

<sup>1</sup> These hours are distributed among the various clinical departments.

**Courses of the New Four-Year Curriculum****Required Course—First Year**

2. **Prosthetic Dentistry.**—Terminology; impressions; vulcanization; partial and full vulcanite dentures; soldering; band and wire clasp. Lecture or quiz, 1; laboratory, 2 four-hour periods. *II.* Dr. UPP, Dr. SIPPY

**Required Course—Second Year**

5-6. **Prosthetic Dentistry.**—Swaged and cast dentures; tenso-friction appliances; crown and bridge construction. Lecture and quiz, 2; laboratory, 2 three-and-a-half-hour periods. *I, II.* Associate Professor STARR, Dr. UPP, Dr. SIPPY

**Required Courses—Third Year**

9-10. **Prosthetic Dentistry.**—The human dental mechanism; mastication; Gysi and Hall theories of occlusion and articulation; advanced plate, crown, and bridge construction; porcelain technic; splints; obturators. Lecture, 1; laboratory, 2 three-hour periods. *I, II.* Professor DITTMAR, Associate Professor STARR, Dr. UPP, Dr. SIPPY

14. **Infirmiry Clinic: Practical Prosthetic Dentistry.**—256 hours,<sup>1</sup> 16 hours a week. *II.* Professor DITTMAR and assistants

**Required Courses—Fourth Year**

17-18. **Prosthetic Dentistry.**—Lectures, 2. *I, II.* Professor DITTMAR and assistants

19. **Prosthetic Technic.**—Full upper and lower denture articulated and ground to occlusion. 1. *I or II.* Professor DITTMAR and assistants

21-22. **Infirmiry Clinic: Practical Prosthetic Dentistry.**—1,024 hours,<sup>1</sup> 32 hours a week. *I, II.* Professor DITTMAR and assistants

**Courses of the Three-Year Curriculum****Required Courses—Senior Year**

X-15-16. **Prosthetic Dentistry.**—Lectures, 2. *I, II.*

Professor DITTMAR and assistants

X-19-20. **Infirmiry Clinic: Practical Prosthetic Dentistry.**—1,024 hours,<sup>1</sup> 32 hours a week. *I, II.* Professor DITTMAR and assistants

**MATERIA MEDICA AND THERAPEUTICS**

EDGAR DAVID COOLIDGE, D.D.S., *Professor and Head of the Department*

ROBERT EDWIN WILDER, D.D.S., *Instructor*

JAMES ROY BLAYNEY, D.D.S., *Instructor*

**Courses of the New Four-Year Curriculum****Required Courses—Third Year**

3-4. **Pharmacology and Therapeutics.**—Prescription writing; drugs and their therapeutic classifications; action of drugs; anesthetics and stimulants. Lecture, 1. *I, II.* Professor COOLIDGE

8. **Pharmacology and Therapeutics.**—Laboratory, 1 two-hour period. *II.*

Professor COOLIDGE

**Required Courses—Fourth Year**

11-12. **Therapeutics.**—Pathology of the peridental membrane and dental pulp. Prophylaxis. A thesis on oral hygiene required. Lectures; recitations, 2. *I, II.*

Professor COOLIDGE, Dr. WILDER, Dr. BLAYNEY

<sup>1</sup>These hours are distributed among the various clinical departments.

**15-16. Infirmary Clinic.**—Practical examination and diagnosis. Systematic records of history, diagnosis, and treatment. 1,024 hours,<sup>1</sup> 32 hours a week. *I, II.*

Professor COOLIDGE, Dr. WILDER, Dr. BLAYNEY

### Courses of the Three-Year Curriculum

#### Required Courses—Senior Year

**X-5-6. Therapeutics.**—(See course 11-12.) Lecture or recitation, 1. *I, II.*

Professor COOLIDGE, Dr. WILDER, Dr. BLAYNEY

**X-17-18. Infirmary Clinic.**—(See course 15-16.) 1,024 hours,<sup>1</sup> 32 hours a week. *I, II.*

Professor COOLIDGE, Dr. WILDER, Dr. BLAYNEY

### ORAL SURGERY AND ORAL PATHOLOGY AND BACTERIOLOGY

FREDERICK BROWN MOOREHEAD, M.S., D.D.S., M.D., *Professor and Head of the Department*

LOUIS SCHULTZ, D.D.S., M.D., *Associate Professor*

FRANK JOSEPH BERNARD, D.D.S., *Assistant Professor (Extracting)*

ANNA REGINALDA BOLAN, R.N., *Instructor in Surgical Technic*

JAMES ANDREW LARSEN, D.D.S., *Assistant (Extracting)*

JAMES EVERETT FONDA, D.D.S., *Assistant in Oral Surgery*

### Courses of the New Four-Year Curriculum

#### Required Courses—Third Year

**1-2. Principles of Surgery.**—Lectures; conferences. 1; *I, II.*

Associate Professor SCHULTZ

**5-6. Oral and Dental Pathology.**—Pathological changes in oral cavity and general disease processes; neoplasms of mouth and jaws; dental pulp, peridental membrane, and alveolar process. Lectures; recitations; demonstrations; laboratory, 1 two-hour period. *I, II.*

Professor MOOREHEAD, Associate Professor SCHULTZ, and assistants

#### Required Courses—Fourth Year

**11-12. Oral Surgery.**—Etiology, diagnosis; surgical lesions; anesthetics. Lecture, 1; *I, II.*

Professor MOOREHEAD or Associate Professor SCHULTZ

**15-16. Oral Surgery Clinic.**—General case discussions and diagnosis, students participating by assignment. Demonstrations of surgical technic and anesthetics. 1 three-hour period. *I, II.*

Professor MOOREHEAD, Associate Professor SCHULTZ, and assistants

**19-20. Extracting Clinic.**—Selection and application of forceps and elevators; use of nitrous oxid and oxygen; novocain, illustrating conduction and infiltration methods; asepsis and after-treatment of cases. 1,024 hours<sup>1</sup> to small groups, 6 three-hour periods. *I, II (one week).*

Assistant Professor BERNARD, Dr. LARSEN, Miss BOLAN, and assistants

### Courses of the Three-Year Curriculum

#### Required Courses—Senior Year

**X-7-8. Special Bacteriology and Pathology.**—The oral cavity; the relation of foci of infections found in the mouth to constitutional diseases; pathology of the pulp and peridental membrane. Lectures, demonstrations, laboratory; 1 two-hour period. *I, II.*

Professor MOOREHEAD, Associate Professor SCHULTZ, and assistants

**X-13-14. Oral Surgery.**—Etiology, diagnosis, treatment; anesthetics. Lectures, 1; *I, II.*

Professor MOOREHEAD or Associate Professor SCHULTZ

<sup>1</sup>These hours are distributed among the various clinical departments.

**X-18-19. Oral Surgery Clinic.**—(See course 15-16.) 1 three-hour period. *I, II.*

Professor MOOREHEAD, Associate Professor SCHULTZ, and assistants

**X-21-22. Extracting Clinic.**—(See course 19-20.) 1,024 hours;<sup>1</sup> to small groups, 6 three-hour periods. *I, II (one week).*

Assistant Professor BERNARD, Dr. LARSEN, Miss BOLAN, and assistants

### ORTHODONTIA

FREDERICK BOGUE NOYES, A.B., D.D.S., *Professor*

BURNE OLIN SIPPY, A.B., D.D.S., *Instructor*

#### Courses of the New Four-Year Curriculum

##### Required Courses—Fourth Year

**3-4. Orthodontia.**—Normal occlusion and its relation to the harmonious development of the features; classification, etiology, and treatment of mal-occlusions. Lecture, 1. *I, II.*

Professor NOYES, Dr. SIPPY

**7-8. Infirmary Clinic: Practical Orthodontia.**—2. *I, II.*

Professor NOYES, Dr. SIPPY

#### Course of the Three-Year Curriculum

##### Required Course—Senior Year

**X-11-12. Orthodontia.**—Normal occlusion and its relation to the harmonious development of the features; classification, etiology, and treatment of mal-occlusions. Lecture, 1. *I, II.*

Professor NOYES, Dr. SIPPY

### ROENTGENOLOGY

JOHN C MCGUIRE, D.D.S., *Assistant Professor*

WACLAW HOWARD KUBACKI, D.D.S., *Assistant*

#### Course of the New Four-Year Curriculum

##### Required Course—Fourth Year

**3. Roentgenology.**—Roentgenograms, technic and interpretation. Lectures, 1. *I (ten weeks).* Laboratory, to small groups, 3 two-hour periods. *I (one week).*

Assistant Professor MCGUIRE, Dr. KUBACKI

#### Course of the Three-Year Curriculum

##### Required Course—Senior Year

**X-5. Roentgenology.**—(See course 3.) Lectures, 1. *I (ten weeks).* Laboratory, to small groups, 3 two-hour periods. *I (one week).*

Assistant Professor MCGUIRE, Dr. KUBACKI

### DENTAL JURISPRUDENCE

ELMER DEWITT BROTHERS, B.S., LL.B., *Lecturer*

#### Course of the New Four-Year Curriculum

##### Required Course—Third Year

**3. Dental Jurisprudence.**—Individual and professional rights and obligations; relation of dentist and patient; confidential character and inviolability of such relation; dental laws. Lectures, 1. *I (ten weeks).*

Mr. BROTHERS

<sup>1</sup> These hours are distributed among the various clinical departments.

## Course of the Three-Year Curriculum

## Required Course—Senior Year

X-5. Dental Jurisprudence.—(See course 3.) Lectures, 1. I.

Mr. BROTHERS

## COURSES FOR PRACTITIONERS

Courses will be arranged for an individual or groups of individuals. Application for such courses should be made to the Dean.

## SUMMARY OF THE THREE-YEAR CURRICULUM

## Senior Year

Departments	Didactic		Hours Laboratory and Clinical		Total
	1st Sem.	2nd Sem.	1st Sem.	2nd Sem.	
General Clinics (Infirmary Practise).....	....	....	528	528	1056
Special Bacteriology and Pathology.....	16	16	16	16	64
Oral Surgery.....	16	16	48	48	128
Therapeutics.....	16	16	....	....	32
Orthodontia.....	16	16	32	32	96
Prosthetic Dentistry.....	32	32	16	....	80
Operative Dentistry.....	16	16	....	....	32
Jurisprudence, Ethics and Economics.....	16	16	....	....	32
Roentgenology.....	16	....	16	....	32
	144	128	624	592	1552

## SUMMARY OF THE FOUR-YEAR CURRICULUM

## First Year

Departments	Didactic		Hours Laboratory and Clinical		Total
	1st Sem.	2nd Sem.	1st Sem.	2nd Sem.	
Zoology (including 72 hours anatomy).....	48	48	96	96	288
Chemistry (General Inorganic).....	64	....	96	....	160
Chemistry (Qualitative Analysis).....	....	16	....	80	96
Rhetoric.....	48	48	....	....	96
Operative Dentistry (Dental Anatomy).....	16	....	96	....	112
Prosthetic Dentistry.....	....	16	....	128	144
General Histology.....	....	32	....	80	112
Technical Drawing.....	....	....	80	....	80
	176	160	368	384	1088

## Second Year

Departments	Didactic		Hours Laboratory and Clinical		Total
	1st Sem.	2nd Sem.	1st Sem.	2nd Sem.	
Anatomy.....	32	32	96	96	256
Bacteriology.....	....	32	....	96	128
Chemistry (Organic).....	32	....	96	....	128
Chemistry (Physiological).....	....	32	....	80	112
Dental Histology and Embryology.....	16	....	80	....	96
Operative Dentistry.....	16	16	80	80	192
Prosthetic Dentistry.....	32	32	112	112	288
	128	144	464	464	1200

## Third Year

Departments	Didactic		Hours Laboratory and Clinical		Total
	1st Sem.	2nd Sem.	1st Sem.	2nd Sem.	
Jurisprudence, Ethics, and Economics.....	16	16	....	....	32
General Pathology.....	48	....	80	....	128
Metallurgy.....	32	....	64	....	96
Materia Medica, and Therapeutics.....	16	16	....	32	64
Operative Dentistry.....	16	16	80	80	192
Prosthetic Dentistry.....	16	16	96	96	224
General Clinics (Infirmary Practise).....	....	....	....	256	256
Physiology.....	80	48	96	....	224
Principles of Surgery.....	16	16	....	....	32
Dental Pathology.....	16	16	16	16	64
	256	144	432	480	1312

**Fourth Year**

Departments	Didactic		Hours Laboratory and Clinical		Total
	1st Sem.	2nd Sem.	1st Sem.	2nd Sem.	
General Clinics (Infirmary Practise).....	....	....	528	528	1056
Operative Dentistry.....	32	32	....	....	64
Orthodontia.....	16	16	32	32	96
Prosthetic Dentistry.....	32	32	16	....	80
Roentgenology.....	10	....	6	....	16
Therapeutics.....	32	32	....	....	64
Oral Surgery.....	16	16	48	48	128
	<u>138</u>	<u>128</u>	<u>630</u>	<u>608</u>	<u>1504</u>



# THE SCHOOL OF PHARMACY

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For the *faculty* of the School of Pharmacy, see page 39; for a description of the *building*, see page 57.

## HISTORY

The School of Pharmacy was originally the Chicago College of Pharmacy and was incorporated under that name September 5, 1859.

In October, 1859, the first course of lectures was instituted, occupying three evenings a week for a period of six months. The first class, of two students, was graduated in 1861. The war caused a suspension of teaching, and the school was not reopened until 1870. The fire of 1871 destroyed the equipment, but in 1872 instruction was resumed for the second time has since continued without interruption.

The College was formally united with the University May 1, 1896, becoming the technical School of Pharmacy of the University of Illinois.

## THE NEW LOCATION

In December, 1915, the University purchased for the School the property located at the corner of Wood and Flournoy streets and comprising eight city lots with two large brick buildings. The new quarters were occupied in June, 1916.

The new location is in the great medical center of Chicago and close to the colleges of Medicine and Dentistry of the University.

## EQUIPMENT

The buildings include two substantial brick structures connected at each floor by a stair-tower building. Both have daylight from four sides and electric light throughout, and are heated by steam.

The larger building is sixty by eighty feet square and four stories high. It contains the offices, the library, the museum, the microscopical laboratory, the bacteriological laboratory, an auditorium, a lecture hall, a recitation room, preparation rooms and private laboratories for the teachers, students' rooms, and locker rooms.

The smaller building is forty-four by eighty-eight feet square and three stories high. It contains the pharmaceutical laboratory, the laboratory for quantitative analysis, the laboratory for qualitative analysis, and several private laboratories for the teachers, as well as store rooms and supply rooms.

The stair-tower building, of fireproof construction, provides the students' entrance, stairways to each floor, corridors, toilets, and rooms for the hydrogen sulphide generator and distilled water supply.

The total capacity of the laboratories is sufficient for 266 students, working at one time.

The laboratories are supplied with compound microscopes, analytical balances, and special apparatus, and with collections of crude drugs, medicinal plants, chemicals, and pharmaceutical products.

The library contains over three thousand volumes, including, in addition to the usual works of reference, many rare books and complete files of the leading pharmaceutical journals.

## CURRICULUMS

## For the Degree of Graduate in Pharmacy

In the curriculum leading to the degree of Graduate in Pharmacy the instruction is so arranged as to require the attendance of each student on three or four days each week and from twenty-one to twenty-six hours weekly during two annual sessions of thirty-six weeks each. This arrangement is advantageous to drug clerks who desire to spend a part of their time in drug stores while attending school, thereby adding to their practical experience and at the same time earning a part or all of their living expenses.

The subjects taught are chemistry, general, pharmaceutical, and analytical; pharmacy, theoretical, manufacturing, and dispensing; botany; physiology; and materia medica.

## For the Degree of Pharmaceutical Chemist

To meet the demand for special training on the part of students who desire to pursue more extended courses in pharmaceutical chemistry, applied microscopy, and bacteriology, or to prepare themselves for positions in food and drug laboratories, the School offers a three-year curriculum leading to the degree of Pharmaceutical Chemist. This curriculum comprises three annual sessions of thirty-six weeks each, the first two years being identical with the curriculum for the degree of Graduate in Pharmacy. The third year includes thirty-five hours a week for thirty-six weeks and consists largely of laboratory practise.

This curriculum includes, in addition to the subjects mentioned above, organic analysis and proximate assays, new remedies, analysis of urine, food and sanitary analysis, bacteriology, and applied microscopy.

The system of teaching includes lectures, illustrations, demonstrations, recitations, written and oral examinations, and individual practise and personal instruction in the various laboratories, much time being devoted to this important part of the student's work.

## ADMISSION

The regular session opened October 1, 1918, and closes June 11, 1919.

Applicants for admission must be at least seventeen years of age.

A candidate for admission by certificate must be a graduate of an accredited high school or other accredited school, with fifteen units in acceptable subjects. By acceptable subjects are meant the subjects included in Lists A, B, and C, as given in the statement of the University's entrance requirements on pages 66-68; not more than three units to be chosen from List C.

An applicant who has not been graduated from an accredited school must pass entrance examinations in the following subjects, amounting to 5 units:

English composition.....	1 unit
Algebra.....	1 unit
Additional subjects to be designated by the university authorities.....	3 units
Total.....	5 units

The remaining 10 units necessary to make up the 15 units required for admission may also be made in entrance examinations or may be offered by certificate from an accredited school.

The fifteen units required for the School of Pharmacy must include the following prescribed subjects:

English.....	3 units
Algebra.....	1 unit
Plane geometry.....	1 unit
Physics or chemistry or zoology or botany or physiology or physiography, with laboratory work....	1 unit
Total.....	6 units

Admission as special students, not candidates for a degree, is restricted to registered apprentices, assistants, or pharmacists, not less than twenty-one years of age.

Students who have pursued courses of study in other schools of pharmacy will be given credit for such portions of their work as are equivalent to the work required by this School.

## GRADUATION

Drug store experience is not made a requirement for the degree of Pharmaceutical Chemist. Students who have satisfactorily completed the curriculum will be awarded the degree on the recommendation of the faculty.

For the degree of Graduate in Pharmacy this School has always required practical drug store experience. The actual time of attendance at the School, amounting to eighteen months, is credited as part of the four years of practical experience required for the degree. Candidates must have attained the age of twenty-one years and have satisfactorily finished the work leading to the degree.

Students who have successfully met the scholarship requirements, but are lacking in age or in practical experience, will receive a certificate and will be awarded the diploma when the requirements of age and experience are satisfied.

Persons competent to fill the general requirements of admission to the University may be granted credits upon other University courses for equivalent work completed at the School of Pharmacy.

## STATE REGISTRATION

The pharmacy law of Illinois requires all candidates for the certificate of registered pharmacist to pass an examination given by the State Department of Registration and Education. Credit is given as a part of the "practical experience in compounding drugs" required by the law, for the actual time of attendance at a recognized school of pharmacy, but not to exceed twenty-four months for registered pharmacist nor twelve months for registered assistant pharmacist.

An amendment to the pharmacy law, in effect July 1, 1917, requires graduation from a recognized school of pharmacy, of candidates for the certificate of registered pharmacist, with the exception of those drug clerks who were entered on the rolls of the Board of Pharmacy as apprentices or assistants prior to the date when the law went into effect. The diploma of this school also admits to the pharmacy examinations in other states where the graduation requirement is in force.

The School holds membership in the American Conference of Pharmaceutical Faculties.

## FEES AND EXPENSES

For a statement of the fees, see page 107. Fees are payable in advance. Students unable to meet this requirement must make satisfactory arrangements with the Dean at the beginning of the course.

**BOARD AND LODGING.**—Good board and lodging, within a short distance of the School, can be had for from five to six dollars a week.

**SELECTION OF SEATS.**—Seats in the lecture halls and desks in the laboratories will be assigned to students in the order of enrollment. To enroll, junior students will fill out the matriculation blank and forward it to the Dean together with credentials for admission and the matriculation fee of ten dollars; senior students will pay the registration fee of five dollars. It is of advantage to students to matriculate early.

**OPPORTUNITIES FOR EMPLOYMENT.**—A register of students desiring employment and of pharmacists wishing to employ students is kept at the School. Students desiring employment are invited to correspond with the Dean.

## FURTHER INFORMATION

Further information may be found in the special announcement of this School, which may be obtained from the DEAN, SCHOOL OF PHARMACY, 701 South Wood Street, Chicago, Illinois.



PART III  
DESCRIPTION OF COURSES



# DESCRIPTION OF COURSES

## EXPLANATION

The arrangement of subjects in the following Description of Courses is alphabetical. The connections of allied departments are indicated by cross references.

Following the description of each course of instruction will be found the requirements, if any, for admission to that particular course. The sequence indicated by these prerequisites must be followed. For instance, under Art and Design 7c, Still-life in Oil Colors, the prerequisites given are Art and Design 1 and 2. These two courses must be completed before Course 7c may be taken.

If a course not required for graduation is selected by fewer than five students it may be withdrawn for the semester.

Graduate courses are numbered upwards from 100.

Credit is reckoned, *for undergraduate students*, in *semester hours*, or simply *hours*. An *hour* is one class period a week for one semester or the equivalent in laboratory, shop, or drawing room.

The semester, and the number of hours each semester for which the course counts, are shown after each course, thus: *I, II; (2)*. The Roman figures indicate semesters; the Arabic numerals in parentheses indicate hours of credit for *each semester* for undergraduates.

The quarters in which courses were offered during the year 1918-19, and the quarter-hours' credit assigned, are indicated by the material in brackets following the semester credits. A quarter hour is equivalent to two-thirds of a semester hour.

*Credit for first-year graduate students*, candidates for the master's degree, is counted in units. A unit course is one which requires ten hours of time a week through one semester, irrespective of the distribution of that time in class work, laboratory work, and private study; four such courses or their equivalent constitutes a full minimum program for one semester. The unit values of graduate courses (numbered 100 and upwards) are indicated in the following pages. Courses of the intermediate groups "for graduates and advanced undergraduates," are in general (unless otherwise specified by the department concerned) evaluated as follows for graduate credit: (a) courses open only to students having at least senior standing, 1 unit for a 4-hour or 5-hour course,  $\frac{1}{2}$  unit for a 1-hour, 2-hour, or 3-hour course; (b) courses open to juniors,  $\frac{1}{2}$  unit for a 4-hour or 5-hour course;  $\frac{1}{4}$  unit for a 1-hour, 2-hour, or 3-hour course.

*For second-year and third-year graduate students*, candidates for the doctor's degree, no record of units is kept.

The omission of a course for the current year is indicated by enclosing the entire description of such a course in brackets.

Courses given in the summer session of 1918 are indicated by the initial letter S preceding the number and are grouped by departments after the courses given during the winter.

## ACCOUNTANCY

(See BUSINESS ORGANIZATION AND OPERATION.)

## AGRICULTURAL COLLEGE EXTENSION

FRED HENRY RANKIN, B.S., *Superintendent and Assistant to the Dean*ARETAS WILBUR NOLAN, M.S., *Assistant Professor*ALBERT WOODWARD JAMISON, M.S., *Assistant Superintendent*CARL COLVIN, M.S., *Associate*JOSEPH HARVEY CHECKLEY,<sup>1</sup> B.S., *Associate*ROBERT ENOCH HIERONYMUS, A.M., LL.D., *Community Adviser*JAMES HENRY GREENE, M.S., *State Leader, Junior Extension*

**[3. Agricultural Extension Teachings.]**—The service of extension enterprises to the people; farmers' institutes; agricultural extension schools; farmers' clubs and cooperative work in rural communities. *II*; (1). Not given, 1918-19.

Professor RANKIN, Assistant Professor JAMISON

*Prerequisite:* One year of university work.]

**[4. Elementary Agricultural Extension.]**—Introduction to agricultural college and university work; methods of study; scope and application of agricultural teaching and investigation. Lectures. Required of first-year students. *I*; (1). Not given, 1918-19. (Credit given to agricultural freshmen only.) Dean DAVENPORT and other lecturers]

**6.<sup>2</sup> Principles and Methods of High-School Agriculture.**—A course giving practise in making lesson plans and teaching agricultural classes in secondary schools. Each student registered in this course will teach agriculture for one term in the high school. *I, II*; (3) [W6; 1Q, 2Q, or 3Q; 5 quarter hours]. Mr. COLVIN

*Prerequisite:* Senior standing.

**7.<sup>2</sup> Vocational Agricultural Education.**—Administration, supervision, and teaching of agriculture under the Smith-Hughes Act. *I, II*; (2) [W7; 1Q, 2Q, or 3Q; 2 quarter hours]. Mr. COLVIN

*Prerequisite:* Senior standing.

6 and 7 must be taken together.

**8.<sup>2</sup> Curriculums in Secondary School Agriculture.**—Curriculum studies in general agriculture, agronomy, animal husbandry, horticulture, dairying, farm engineering, etc. Content of courses and methods of teaching in public schools. *I, or II*; (3) [2Q, or 3Q; 3 quarter hours]. Mr. COLVIN

*Prerequisite:* Junior standing.

## AGRONOMY

CYRIL GEORGE HOPKINS,<sup>3</sup> Ph.D., *Professor, Agronomy*LOUIE HENRIE SMITH, Ph.D., *Professor, Plant Breeding*JEREMIAH GEORGE MOSIER, B.S., *Professor, Soil Physics*WILLIAM LEONIDAS BURLISON, Ph.D., *Professor, Crop Production*ROBERT STEWART, Ph.D., *Professor, Soil Fertility*EARL ARCHIBALD WHITE, Ph.D., *Associate Professor, Farm Mechanics*ALBERT LEMUEL WHITING, Ph.D., *Associate Professor, Soil Biology*AXEL FERDINAND GUSTAFSON,<sup>2</sup> M.S., *Assistant Professor, Soil Physics*FREDERICK CHARLES BAUER,<sup>3</sup> M.S., *Assistant Professor, Soil Fertility*FRANK ARCHIBALD WYATT, Ph.D., *Assistant Professor, Soil Fertility*<sup>1</sup> Resigned.<sup>2</sup> Courses intended to prepare teachers for Smith-Hughes schools but not counted as technical agriculture.<sup>3</sup> On leave.



FORREST ADISON FISHER, B.S., *Associate, Soil Physics*  
 MARVIN EDWARD JAHR, A.B., *Associate, Farm Mechanics*  
 HOWARD JOHN SNIDER, B.S., *Associate, Soil Fertility*  
 RAYMOND STRATTON SMITH, Ph.D., *Associate, Soil Physics*  
 HARRY CHARLES GILKERSON,<sup>1</sup> B.S., *Associate, Soil Fertility*  
 ARTHUR MAXWELL BRUNSON, B.S., *Associate, Plant Breeding*  
 ROY HANSEN, M.S., *Instructor, Soil Biology*  
 JOHN CHARLES THORPE, B.S., *Instructor, Farm Mechanics*  
 WALTER BLACKBURN JONES, B.S., *Instructor, Farm Mechanics*  
 RAY IRIS SHAWL, B.S., *Assistant, Farm Mechanics*  
 GEORGE HARLAN DUNGAN, B.S., *Assistant, Crop Production*  
 JOHN PIEPER, M.S., *Assistant, Crop Production*  
 CLARK WESLEY BULLARD, B.S., *Assistant, Farm Mechanics*

### Courses for Undergraduates

Crops: Agronomy 7, 8, 18, 22, 25.

Soils: Agronomy 9, 10, 11, 12, 13, 18, 23.

Farm Mechanics and Buildings: Agronomy 1, 2, 3, 4, 17, 18, 19, 20, 26, 27.

**1. Drainage.**—Drainage and its surveying operations. Chaining, mapping, leveling, designing, setting grade stakes, laying tile. Lectures and laboratory first half semester; field work second half semester. *II*; (3) [3Q; 3 quarter hours]. Mr. JAHR

*Prerequisite:* Agronomy 9 (soil physics), or its equivalent.

**[2. Power Driven Machinery.**—Adaptability, construction, principles of operation, adjustment, troubles, purchase, and care of field and belt driven machines for soil, seed, and feed preparation, and for seeding, cultivating, harvesting, and handling farm crops. Lectures, recitations, laboratory practise. *I*; (3). Not given, 1918-19.

Associate Professor WHITE

*Prerequisite:* Agronomy 26.]

**3. Farm Motors.**—Internal combustion engines and tractors—theory, ignition, operation, and economy—practise in adjustments, troubles, and testing. The horse as a motor, windmills, waterpower, steam engines, electric motors—their theory, operation, and economy. Transmission of farm power and its application to farm operations. Lectures; quizzes; laboratory. (Alternating with Mechanical Engineering 71 and 73 if desired.) *II*; (3) [3Q; 3 quarter hours].

Associate Professor WHITE

*Prerequisite:* Agronomy 26.

**[4. Farm Buildings.**—Materials; construction, arrangement, design, and cost estimation of machine sheds, granaries, cribs, silos, poultry houses, swine houses, barns, and farm residences. Recitations; drafting. *I*; (3). Not given, 1918-19.

Mr. BULLARD

*Prerequisite:* Agronomy 26.]

**7. Advanced Farm Crops.**—Climatic and soil factors in relation to crop production; meadows and pastures; rotation; distribution of labor; cost of production; pure seed production; supply and consumption of products and by-products of farm crops; storage and marketing. Lectures; assigned reading; laboratory; demonstrations. *II*; (3).

*Prerequisite:* Agronomy 25, Chemistry 13a, and either Botany 27 or an approved equivalent in science (consult instructor). [2Q; 3 quarter hours]. Professor BURLISON

**8. Special Farm Crops.**—Special crops in which the student is interested. Reading; experiments by pot culture in the greenhouse or by pots in the field. Part of this work may be done during summer vacation. *II*; (3) [2Q; 3 quarter hours]. Professor BURLISON

*Prerequisite:* Agronomy 7.

<sup>1</sup> Resigned.

**9. Soil Physics and Management.**—Origin and formation of soil material, mechanical composition and classification; moisture; texture as affecting capillarity; diffusion, temperature, aeration, and as affected by plowing, harrowing, cultivating, rolling, and cropping, wasting by washing, fall or spring plowing and drainage as affecting moisture, temperature, and root development; real and apparent specific gravity, porosity, water holding capacity, and capillary power; the physical effects of different systems of rotation and of continuous cropping with various crops. Lectures; laboratory. *I or II*; (5) [W9; 1Q, 3Q; 5 quarter hours].  
Professor MOSIER, Mr. FISHER, Dr. SMITH

*Prerequisite:* Chemistry 2, and one unit of entrance or university physics.

**10. Special Work in Soil Physics.**—Physical properties of special soils; physical analysis; determination of hygroscopic and wilting coefficients and moisture equivalents; effect of tillage on physical factors as related to crop growth in field and greenhouse. Students may work with special soils. Under special arrangement part of this work may be done during summer vacation. *Time to be arranged. I or II*; (2-5),<sup>1</sup> [W10; 1Q; 3-5 quarter hours].  
Professor MOSIER, Mr. FISHER, Dr. SMITH

*Prerequisite:* Agronomy 9, and approval of the Soil Physics division.

**11. Soil Biology.**—Quantitative studies of the biochemical activities of soil microorganisms with respect to fertility, factors influencing the bacteria, protozoa, algae, and fungi; isolation and study of organisms; action on insoluble mineral plant food; fermentation of crop residues, green and farm manures; nitrogen fixation, assimilation; and preservation, and similar studies of the other essential elements. Lectures; quiz; laboratory. *II*; (5) [3Q; 5 quarter hours].  
Associate Professor WHITING, Mr. HANSEN

*Prerequisite:* Agronomy 12 and Bacteriology 1, or 5, or 20, or the equivalent.

**12. Soil Fertility, Fertilizers, Rotations.**<sup>2</sup>—The influence of fertility on yield; effect of different crops on the soil and on succeeding crops; different rotations; ultimate effect of different systems of farming on fertility and productivity; composition and value of manures and fertilizers, soils cropped continuously with different crops and with a series of crops; the fertility of soils of different types from different sections of Illinois. Lectures; laboratory. *II*; (5) [3Q; 5 quarter hours].

Professor STEWART, Assistant Professor WYATT, Mr. SNIDER

*Prerequisite:* Chemistry 13a.

**12a. Soil Fertility, Fertilizers, Rotations.**<sup>2</sup>—The same as Agronomy 12, for advanced students. Lectures; quiz. *II*; (2) [3Q; 2 quarter hours].

Professor STEWART, Assistant Professor WYATT, Mr. SNIDER

*Prerequisite:* Graduate standing, or advanced undergraduate standing with the approval of the division.

**13. Investigation of the Fertility of Special Soils.**<sup>3</sup>—Soils in which the student is interested. Nature and quantity of the elements of fertility; effect of different fertilizers, as determined by pot cultures and by pot experiments; systematic study of similar work of experiment stations and experimenters. *II*; (3) [2Q; 3 quarter hours].

Professor STEWART, Assistant Professor WYATT

*Prerequisite:* Agronomy 12.

**[14. Seed Inspection and Grain Standardization.**—Designed for advanced students who intend to enter the seed or grain business. Advanced work in the inspection of samples of small seeds for purity and germination; sampling, judging, and grading of

<sup>1</sup>In registering for a course with variable credit hours, a student must put down on his study list, *not* the possible hours, as shown here, but the number of hours for which *he* intends to take the course; e. g., not 2-5 but 2, or 3, or 4, or 5.

<sup>2</sup>A required inspection trip to certain soil experiment fields or farms will be arranged in May or early June, in connection with courses 12 and 12a, which will require an expense of about \$10 on the part of the student.

<sup>3</sup>The student is advised to collect in advance a representative composite sample of surface soil (at least 6 pounds) from land in which he is interested (see page 44 of the Soil Fertility Laboratory Manual, or Illinois Experiment Station Circular 150).

seeds, grains, and hays. Discussions of seed and grain laws and their application; transportation, marketing, centers of production. Lectures; laboratory. *II*; (2). Not given, 1918-19.

Professor BURLISON

*Prerequisite:* Agronomy 7, or simultaneous registration therein.]

[16. **German Agricultural Readings.**—The current numbers of German journals of agricultural science used as texts, with special attention to soils and crops. *II*; (2). Not given, 1918-19.

Professor HOPKINS

*Prerequisite:* Two years' work in German; Agronomy 12.]

[17. **Harvesting Machinery.**—Expert work on binders, mowers, rakes, loaders, and stackers. For students preparing to become professional field experts on these machines. (Before registering in this course students are requested to consult instructor regarding requirements for successful experting.) *II*; (3). Not given, 1918-19.

Associate Professor WHITE

*Prerequisite:* M. E. 71; Agronomy 2, and Agronomy 3 or registration therein.]

18a-18b. **Investigation and Thesis.**—*I, II*; (5-10).<sup>1</sup>

Heads of divisions

19a-19b. **Research Work in Agronomy.**—Consult instructor regarding time and requirements. *I, II*; (5-10).<sup>1</sup>

Heads of divisions

20. **Farm Concrete Construction.**—Materials used in concrete construction; mixing and placing; simple comparative tests; specifications and estimates for farm concrete construction. Recitations; laboratory. *II*; (3) [2Q; 3 quarter hours].

Mr. JAHR

22. **Plant Breeding.**—The improvement by breeding of field crops, including grains, grasses, and legumes; general principles involved, with practical applications. Lectures, assigned reading, demonstrations, and laboratory. [3Q; 2 quarter hours].

Professor SMITH, Mr. BRUNSON

*Prerequisite:* Botany 1; Chemistry 13a; Agronomy 25, Junior Standing.

[23. **Plant Food Supplies.**—The world's supply of plant food materials; utilization and conservation. *II*; (2). Not given, 1918-19.

Professor STEWART

*Prerequisite:* Agronomy 12.]

25. **Farm Crops.**—Plant growth; structure; principles governing the production and harvesting of common farm crops; habits, characteristics, requirements, means of improvement; common diseases, insects, and their control; weed seed identification; methods of weed control, seed testing for purity and germination; market grades of grain; grain judging. *I, II*; (4) [25; 1Q, 2Q, 3Q; 5 quarter hours].

Professor BURLISON, Mr. DUNGAN, Mr. PIEPER

26. **Elementary Farm Mechanics.**—Ropes, soldering, babbiting, belt lacing, pipe cutting, plumbing, sewage disposal, farm water systems, lighting systems, heating systems, power transmission, elementary mechanics, and equalizers. Design of a farm shop. *I or II*; (3) [W26; 1Q, 3 quarter hours; 2Q, 3Q; 5 quarter hours].

Associate Professor WHITE, Mr. JAHR, Mr. BULLARD

26a.<sup>2</sup> **Elementary Farm Mechanics.**—Drafting. [2Q; 1 quarter hour].

Mr. BULLARD

[27. **Drainage Design.**—Designing of tile drainage systems from level note data and contour maps; estimating sizes, amounts, and cost of tile, and cost of system; designing of outlet open ditch system for drainage districts; estimation of sizes and costs; drainage district laws; preparing bids on contract jobs; advanced field work. *I*; (1-5).<sup>1</sup> Not given, 1918-19.

Mr. JAHR

*Prerequisite:* Agronomy 1, or Civil Engineering 96, 31, or 32.]

<sup>1</sup> In registering for a course with variable credit hours, a student must put down on his study list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

<sup>2</sup> May only be elected by students who have credit in Agronomy 26.

## Courses for Graduates

**101. Soil Investigations.**—Systems of soil investigations; sources of error and methods of control; interpretation of results. *Twice a week; II; (1 unit).*

Professor STEWART

**104. Seminar in Agronomy.**—Critical study by graduate students, faculty, and staff members of current literature on the subject of soils and crops. *Once a week; I, II; (½ unit).*

Associate Professor WHITING, and others

**112. Plant Breeding.**—A detailed study of experiments at this station; methods and results reported from other states and from foreign countries. *I, II; (1 to 2 units).*

Professor SMITH

**114. Crop Production.**—Crop ecology, methods and results of crop production investigations. *Once a week; I, II; (½ to 2 units).*

Professor BURLISON

**118. Investigations.**—A special problem is chosen by each student. Consultation one to five times a week for different students. *I, II; (1 to 4 units).*

Heads of divisions

## ANIMAL HUSBANDRY

HERBERT WINDSOR MUMFORD, B.S., *Professor, Animal Husbandry*

HARRY SANDS GRINDLEY, D.Sc., *Professor, Animal Nutrition*

WALTER CASTELLA COFFEY, M.S., *Professor, Sheep Husbandry*

JAMES LLOYD EDMONDS, B.S., *Professor, Horse Husbandry*

HENRY PERLY RUSK, M.S., *Professor, Cattle Husbandry*

ROBERT GRAHAM, D.V.M., B.S. in Ag., *Professor, Animal Pathology*

JOHN A DETLEFSEN, D.Sc., *Associate Professor, Genetics*

HAROLD HANSON MITCHELL, Ph.D., *Assistant Professor, Animal Nutrition*

WILLIAM HERSCHEL SMITH, M.S., *Associate, Animal Husbandry*

DANIEL OTIS BARTO, B.S., *Associate, Animal Husbandry*

GILBERT GUSLER, B.S., *Associate, Animal Husbandry*

SLEETER BULL, M.S., *Associate, Animal Nutrition*

ROY HAROLD WILCOX, B.S., *Associate, Animal Husbandry*

ELMER ROBERTS, Ph.D., *Associate, Genetics*

JAMES WILBUR WHISENAND, M.S., *Associate, Animal Husbandry*

EARL KIRKWOOD AUGUSTUS,<sup>1</sup> B.S., *Associate, Animal Husbandry*

JOHN BENJAMIN RICE, B.S., *Associate, Animal Husbandry*

HENRY CHARLES ECKSTEIN, M.S., *Instructor, Animal Nutrition*

WORTH ARTHUR ALLISON, A.B., M.S., *Assistant, Animal Husbandry*

## Courses for Undergraduates

Animal Pathology: Animal Husbandry 34, 35.

Beef Cattle: Animal Husbandry 11a, 11b.

Breeding, Feeding, Management, and Marketing: Animal Husbandry 8, 21, 23, 29, 30, 32.

General Judging: Animal Husbandry 1a, 2a, 4a, 5, 11a, 22.

Genetics: Animal Husbandry 30.

Horses: Animal Husbandry 4a, 4b.

Meat: Animal Husbandry 10, 24.

Nutrition: Animal Husbandry 7, 7a, 31.

Poultry: Animal Husbandry 23.

<sup>1</sup> Resigned.

**Sheep:** Animal Husbandry 1a, 1b, 27.

**Swine:** Animal Husbandry 2a, 2b, 26.

**NOTE.**—Students registered in advanced courses such as 10, 23, 29 and 32, are required to participate in tours of inspection of representative markets, farms, herds, flocks, and studs.

**1a. Sheep: Breeds and Market Classes.**—Breeds used for mutton and wool production; types, characteristics, and adaptability; market classes and grades of sheep and wool. Lectures; judging. *I*; (2) [W1a; 1Q; 2 quarter hours]. Professor COFFEY

*Prerequisite:* Animal Husbandry 5 or its equivalent.

**1b. Sheep: Breeding, Feeding, and Management.**—Pure bred and grade flocks; feeding, housing, and shepherding. Lectures; reference readings. *I*; (3) [W1b; 1Q; 3 quarter hours]. Professor COFFEY

*Prerequisite:* Animal Husbandry 5, 8, and 21, or their equivalents.

It is advisable to take 1a and 1b the same semester.

**2a. Swine: Breeds and Market Classes.**—History of the leading breeds; types, characteristics, and adaptability; market classes and grades; market reports. Lectures; judging. *II*; (2) [2Q; 2 quarter hours]. Mr. RICE

*Prerequisite:* Animal Husbandry 5 or its equivalent.

**2b. Swine Husbandry.**—Economic production of market and breeding hogs. Breeding, feeding, housing, care, sanitation, common diseases, and marketing. Lectures; assigned reading; quizzes. *II*; (3) [2Q; 3 quarter hours]. Mr. RICE

*Prerequisite:* Animal Husbandry 5, 8, and 21, or their equivalents.

It is advisable to take 2a and 2b the same semester.

**4a. Market Classes of Horses and Mules and Breeds of Horses.**—Market classes, grades, and requirements. History of the leading breeds; types, characteristics, and adaptability. Lectures; judging. *II*; (2). Not given, 1918–19. Professor EDMONDS

*Prerequisite:* Animal Husbandry 5, or its equivalent.]

**4b. Breeding, Feeding, and Management of Horses.**—Care of Stallions, mares, and foals; of work horses and drivers at labor and idle; fattening horses for market. Lectures; assigned readings. *II*; (3). Not given, 1918–19; see W36. Professor EDMONDS

*Prerequisite:* Animal Husbandry 5, 8, and 21, or their equivalents.

It is advisable to take 4a and 4b the same semester.]

**5. Fundamentals of Live Stock Judging.**—Principles and criteria governing the selection of farm animals for market, feed lot, breeding purposes, milk production and work; nomenclature, the use of the score card, and the comparative judging of the various types of live stock; origin of types; characteristics of the breeds. Required in freshman year. *I* or *II*; (3) [W5; 1Q, 2Q, 3Q; 4 quarter hours].

Mr. GUSLER, Mr. BULL, Mr. WHISENAND

**7. Principles of Animal Nutrition.**—Composition of feeding stuffs and the chemistry of food nutrients; digestion and the determination of digestibility; absorption and metabolism of organic and inorganic nutrients; the function of fats, carbohydrates, proteins, and ash constituents in nutrition; energy, metabolism and the fuel value of the feeding stuffs; regulating factors in metabolism; food requirements and feeding standards; the specific value of different feeds in nutrition. Lectures; recitations; laboratory. *I*; (5) [2Q; 5 quarter hours]. Assistant Professor MITCHELL

*Prerequisite:* Animal Husbandry 21; Chemistry 13a.

**7a. Principles of Animal Nutrition.**—The same as Animal Husbandry 7, for advanced students. Lectures; recitations. *I*; (3). Not given, 1918–19.

Assistant Professor MITCHELL

*Prerequisites:* Graduate standing, or qualified undergraduates of junior or senior

standing. Undergraduates before registering in this course must secure the approval of the instructor.]

**8. Principles of Breeding.**—Elemental facts of evolution and genetics; origin of domesticated animals and plants; history of systematic breeding; the relation to genetics of old and new theories of breeding. Required in the sophomore year. *I* or *II*; (1) [W8; 1Q, 2Q; 3 quarter hours]. Associate Professor DETLEFSEN, Dr. ROBERTS

NOTE.—See Animal Husbandry 21.

**9. Investigation and Thesis.**—Open to any student who has completed not less than 90 hours credit before the senior year provided he has done not less than 20 hours work in courses pertinent to the thesis problem. Subject to the approval of the head of the Department. *I* or *II*; (5-10).<sup>1</sup> Heads of divisions

**10. Meat.**—Farm butchering, curing and care of meats; yield, quality, and values of meat and by-products, as related to breeding, feeding, and health of animals; classes, grades, and cuts of meat in wholesale and retail markets. An inspection trip to Chicago is required of the class, the cost of which is about \$12.00. *II*; (3) [3Q; 3 quarter hours]. Professor COFFEY

*Prerequisite:* Two years of university work.

**11a. Beef Cattle.**—Breeds and market classes; history of the leading breeds; beef type from the standpoint of the butcher, the feeder, and the breeder; classification and value of each grade according to current market reports. Judging; lectures; quizzes; assigned readings. *I*; (2) [3Q; 2 quarter hours]. Professor RUSK, Mr. ALLISON

*Prerequisite:* Animal Husbandry 5 or its equivalent.

**11b. Beef Production.**—Breeding and management of pure bred herds; breeding for the market; combined beef and milk production, economic factors in cattle feeding; influence of age, grade, breed, condition, and sex; equipment; pork and manure as by-products of beef production. Lectures; quizzes; assigned readings (text-book). *I*; (3) [3Q; 3 quarter hours]. Professor RUSK, Mr. ALLISON

*Prerequisite:* Animal Husbandry 5, 8, and 21, or their equivalents. It is advisable to take 11a and 11b simultaneously.

**21. Principles of Feeding.**—Classification, digestibility, and functions of feed nutrients; classification and values of feeding stuffs; feed requirements and calculation of balanced rations for farm animals. Required in sophomore year. *I* or *II*; (2) [W21; 1Q, 3Q; 3 quarter hours]. Mr. BULL, Mr. GUSLER, Mr. WHISENAND

*Prerequisite:* Chemistry 1 or 1a; Chemistry 2; Animal Husbandry 5; and registration in Animal Husbandry 8.

NOTE.—To arrange his schedule most efficiently the student should register in the same section as in Animal Husbandry 8.

**22. Advanced Stock Judging.**—Animal conformation, quality, and condition with reference to market and show yard requirements; selection of horses, beef cattle, sheep and swine, for feed lot, market and exhibition; judging at live stock shows. *I*; (3) [3Q; 3 quarter hours]. Professor MUMFORD and heads of divisions

*Prerequisite:* Animal Husbandry 1a, 2a, 4a, 11a, or their equivalents.

**23. Poultry: Types, Breeds, and Varieties.**—Exhibiting, and judging; principles of breeding; poultry houses and equipment; feeding, hatching, and brooding; market eggs and poultry; crate-fattening and dressing; diseases and their treatment. A limited number of short trips will be taken, the total cost of which will not exceed \$10.00. *II*; (5) [3Q; 4 quarter hours]. Mr. BARTO

*Prerequisite:* Animal Husbandry 5, or its equivalent.

<sup>1</sup> In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which *he* intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

[24. **Meat.**—Influence of type, condition, age, sex, and feeds on the yield and market grade of meat products. *II*; (2-5).<sup>1</sup> Not given, 1918-19. Professor COFFEY

*Prerequisite:* Animal Husbandry 10, and 1a or 2a or 11a; three years' work in the University, or its equivalent.]

26. **Swine Husbandry.**—Special problems. *II*; (2-5)<sup>1</sup> [3Q; 2-5 quarter hours].

Mr. RICE

*Prerequisite:* Animal Husbandry 2a, 2b, three years' work in the University, or its equivalent.]

[27. **Sheep Husbandry.**—Factors determining the importance of the industry in leading sheep growing countries, particularly different parts of the United States. *II*; (2-5).<sup>1</sup> Not given, 1918-19. Professor COFFEY

*Prerequisite:* Animal Husbandry 1a, 1b; three years' work in the University, or its equivalent.]

28. **Advanced History of Breeds of Live Stock.**—Horses, beef cattle, sheep and swine. Methods of great breeders; performances and pedigrees of famous animals; breed type as exemplified in the University and other herds. Lectures; assigned readings; problems. *I*; (3-5)<sup>1</sup> [2Q; 2-5 quarter hours].

Professor MUMFORD and heads of divisions

#### Breeds offered, 1918-19

Beef cattle.....	Shorthorns, Aberdeen Angus
Horses.....	Percherons, Belgians, Standard breeds
Swine.....	Berkshires, Duroc Jerseys
Sheep.....	Shropshires, Southdowns

#### Breeds offered, 1919-20

Beef cattle.....	Herefords, Galloways
Horses.....	Shires, Clydesdales, American Saddlebreds
Swine.....	Poland Chinas, Chester Whites
Sheep.....	Rambouillets, Oxford Downs

*Prerequisite:* "a" and "b" courses in class of live stock elected. See note at the beginning of description of animal husbandry courses.

29. **Systems of Live Stock Farming.**—The physical and economic factors which tend to determine the types of farming. The economic organizations of the various types of live stock farming, with special reference to the proportions of land, labor and capital employed in the production of the various classes of live stock. Planning systems of live stock farming. The class will visit some of the farms included in the Farm Management investigations being conducted by the department. This trip will cost \$15.00. *II*; (2) [3Q; 3 quarter hours]. Professor HANDSCHIN, Mr. WILCOX

*Prerequisite:* Animal Husbandry 5, 8, and 21, and 6 hours' credit from 1b, 2b, 4b, or 11b; Farm Management 1. See note at the beginning of description of animal husbandry courses.

[30. **Genetics.**—Heredity, variation, elements of biometry, and their practical application to breeding. Lectures; demonstrations; laboratory. Laboratory fee, \$1.00. *II*; (5). Not given, 1918-19. Associate Professor DETLEFSEN, Dr. ROBERTS

*Prerequisite:* Two years of university work. Before registering, students must secure the approval of the instructor.]

31. **Advanced Course in Animal Nutrition.**—Some of the more advanced phases of the chemistry and physiology of nutrition; recent developments on the nature of growth,

<sup>1</sup>In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

the factors affecting metabolism, and the food requirements of animals under different conditions; nutrition investigations of agricultural experiment stations in this and other countries. Lectures; quizzes, assigned readings. *II*; (3) [3Q; 3 quarter hours].

Assistant Professor MITCHELL

*Prerequisite:* Animal Husbandry 7, 7a; an elementary knowledge of organic chemistry is also desirable.

**32. Marketing Live Stock.**—Markets and methods of marketing live stock and their products. Advertising and sale of surplus pedigreed live stock. Certain inspection trips will be required of the class. The expense of these trips will be about \$15.00. *II*; (2) [W32; 1Q; 3 quarter hours.]

Professor MUMFORD, Mr. WILCOX

*Prerequisite:* Two years of university work. At least 4 credits in Animal Husbandry 1a, 2a, 4a, and 11a. See note at the beginning of description of animal husbandry courses.

**[34. Anatomy and Physiology of Farm Animals.**—The structure and function of the animal economy (horse and cow) in health, supplemented by a discussion of the common malformations and non-specific diseases affecting the various organs and systems of the animal. Lectures; assigned readings; quizzes. *I*; (2). Not given, 1918–19.

Professor GRAHAM

*Prerequisite:* Sixty hours of university work.]

**[35. Contagious Diseases of Farm Animals.**—The cause, symptoms, and methods of prevention of the common diseases of animals transmissible to man. A discussion of antisera, vaccines, antitoxins, and bacterins, as well as other biological products as related to the prevention, cure, and diagnosis of animal diseases. Lectures; assigned readings; quizzes. *II*; (2). Not given, 1918–19.

Professor GRAHAM

*Prerequisite:* Animal Husbandry 34.]

**W36. Management of Horses.**—The judging, handling, feeding and shoeing of horses; the care of harness. Special attention will be given to types of horses used in the army and to army methods of their management. (3) [1Q; 3 quarter hours].

Professor EDMONDS

### Courses for Graduates

Students entering graduate work in animal husbandry must have a thoro training in the fundamental principles of the subject either in connection with or in addition to an agricultural course of study substantially equivalent to that offered in this University.

**103. Live Stock Experimentation.**—Objects, methods, and the sources of error in experimental work dealing with the feeding, breeding, and management of farm animals. *Once a week; I, II; (½ unit).*

Professor DAVENPORT

**110. Animal Nutrition.**—Biochemistry, digestion, metabolism, and nutritive value of the proteins. Lectures; seminar. *Twice a week; I, II; (1 unit).*

Professor GRINDLEY, Assistant Professor MITCHELL

**[111. Animal Nutrition.**—Biochemistry, digestion, metabolism, and nutritive value of the fats and lipoids, the carbohydrates, and the inorganic substances. Lectures; seminar. *Twice a week; I, II; (1 unit).* Alternates with Animal Husbandry 110. Not given, 1918–19.

Professor GRINDLEY, Assistant Professor MITCHELL]

**112. Research.**—Opportunity is afforded to pursue investigations along the following lines:

(a) Economic factors involved in meat production.

Professor MUMFORD, Professor COFFEY, Professor RUSK

(b) Systems of live stock farming.

Professor HANDSCHIN

(c) The valuation of pedigrees.

Professor MUMFORD



(d) **Animal Nutrition.** The chemistry of feeding stuffs; metabolism experiments and biochemical studies connected with the nutrition of farm animals.

Professor GRINDLEY, Assistant Professor MITCHELL

(e) **Genetics.** Problems in heredity and variation.

Associate Professor DETLEFSEN

(f) **Factors affecting the quality, quantity, strength, and condition of wool.**

Professor COFFEY

(a), (b), (c), and (f), one to three times a week; (d) and (e), five times a week; I, II; (1 to 2 units).<sup>1</sup> These courses may be taken during the summer by special permission.

**117. Genetics.**—Study and criticism of genetic experiments, biological and mathematical methods employed, and the validity of the conclusions. Two to five times a week; I, II; (1 to 2 units). Associate Professor DETLEFSEN

## ARCHITECTURE

LORING HARVEY PROVINE, B.S., A.E., *Professor, Acting Head*

NATHAN CLIFFORD RICKER, D. Arch., *Professor, Emeritus*

NEWTON ALONZO WELLS, M.P., *Professor, Architectural Decoration*

JAMES McLAREN WHITE, B.S., *Professor, Architectural Engineering, Supervising Architect*

NATHANIEL CORTLANDT CURTIS, Ph.B., B.S., *Associate Professor, Architectural Design*

CHARLES RICHARD CLARK,<sup>2</sup> B.S., M. Arch., *Assistant Professor, Architectural Construction*

REXFORD NEWCOMB, B.S., A.M., *Assistant Professor, Architecture*

ROBERT TAYLOR JONES, B.S., *Associate, Architecture*

DONALD MAHANEY ALLISON, A.B., *Associate, Architectural Design*

CYRUS EDMUND PALMER, M.S., *Associate, Architectural Engineering*

WILLIAM FRANK MCCAUGHEY, JR., A.B., *Instructor, Architectural Design*

WALLACE BRIGHT LIVESAY, B.S., *Instructor, Architectural Engineering*

THOMAS EDWARD O'DONNELL, B.S., *Instructor, Architectural Design*

CHARLES LEONARD MORGAN, B.S., *Instructor, Freehand Drawing*

WINIFRED FEHRENKAMP, B.L.S., *Librarian, Ricker Library*

**13, 14, 15, 16. History of Architecture.**—From the Egyptian period to modern times; effects of local, political, and economic conditions; influence of material, climate, structural systems, the various countries and periods; evolution of architectural forms. Illustrated lectures; quizzes. I, II; (2) [W13, 1Q, 3 quarter hours; 14, 3Q; W15, 1Q, 3 quarter hours; 15, 2Q, 2 quarter hours; 16, 3Q].

Assistant Professor NEWCOMB

*Prerequisite:* Sophomore standing in architecture or architectural engineering, or Architecture 31 and 32.

**23-24. Freehand Drawing.**—Charcoal drawing from the cast. Water color work. I, II; (2) [W23, 1Q, 1 or 2 quarter hours; 23, 2Q, 2 quarter hours; 24, 3Q].

Professor WELLS, Mr. MORGAN

*Prerequisite:* Architecture 32.

**25. Freehand Drawing.**—Principles underlying arrangement of form and color; rhythm and sequence; harmony and contrast. I; (2) [W25; 1Q, 2Q; 2 quarter hours].

Professor WELLS, Mr. MORGAN

*Prerequisite:* Architecture 23-24.

**26. Freehand Drawing.**—Charcoal, pen, pencil, and water color drawing from the cast and still life. Out-of-door sketching. II; (2) [26; 3Q].

Professor WELLS, Mr. MORGAN

*Prerequisite:* Architecture 23-24-25.

<sup>1</sup>In registering for a course with variable credit hours, a student must put down on his study-list, not the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

<sup>2</sup>On leave.

27. **Freehand Drawing.**—Sketching from still life; study of proportions. *I*; (2) [W27; 1Q, 2Q; 2 quarter hours]. Professor WELLS

*Prerequisite:* Architecture 25-26.

28. **Freehand Drawing.**—Water color; original decorative composition; out-of-door sketching. *II*; (2) [3Q]. Professor WELLS

*Prerequisite:* Architecture 25-26-27.

31. **Architectural and Freehand Drawing.**—Instruments, pen, pencil, and brush; lettering; shades and shadows; perspective. Charcoal drawing from the cast. *I*; (4) [W31, 1Q, 2 quarter hours; 2Q, 5 quarter hours].

Assistant Professor NEWCOMB, Mr. McCaughey, Mr. MORGAN

*Prerequisite:* Registration in General Engineering Drawing 2.

32. **Architectural and Freehand Drawing.**—Elements of architecture; walls, moldings, doors, windows, the Orders, vaults, roofs, stairs. Wash rendering, stereotomy, charcoal drawing from the cast. Lectures and sketching. *II*; (4) [3Q].

Mr. McCaughey, Mr. MORGAN

*Prerequisite:* Architecture 31.

33-34. **Design.**—(Elementary.) Rendered order and sketch problems involving simple composition; library research in elements of composition. *I, II*; (3) [W33, 1Q, 2 or 4 quarter hours; 33, 2Q, 3 quarter hours; 34, 3Q].

Mr. ALLISON

*Prerequisite:* Architecture 31, 32.

35-36. **Design.**—(Intermediate.) Rendered plan and sketch problems; library research in plan and interior elements. *I, II*; (5) [W35, 1Q, 3 or 5 quarter hours; 35, 2Q, 5 quarter hours; 36, 3Q].

Associate Professor CURTIS, Mr. ALLISON

*Prerequisite:* Architecture 33-34.

37. **Design.**—(Advanced.) Original design. *I*; (7) [W37, 1Q, 3 or 6 quarter hours; 37, 2Q, 8 quarter hours].

Associate Professor CURTIS

*Prerequisite:* Architecture 35-36.

38. **Advanced Design or Thesis.**—Extended original problems in design. *II*; (7) [3Q].

Associate Professor CURTIS

*Prerequisite:* Architecture 37.

43. **Working Drawings.**—The growth, cutting, seasoning, working, and finishing of woods; structural and decorative properties; detailing various parts on a large scale; floors, walls, roofs, doors, windows, cornices, stairs, wainscoting, cabinet-work, interior finish; preparation of working drawings. Kidder: *Building Construction, Part II*. *I*; (3) [W43, 1Q, 2 or 4 quarter hours; 43, 2Q, 3 quarter hours].

Mr. JONES

*Prerequisite:* General Engineering Drawing 2; Architecture 31, 32.

44. **Working Drawings.**—Materials for stone masonry; their uses, defects, qualities, and preparation; kinds of masonry and external finish; tools for stone cutting; brick masonry, its materials and bonds; terra cotta design, manufacture, and use; columns, beams, girders, and footings; joints and connections. Working drawings. Kidder: *Building Construction and Superintendence, Part I*. *II*; (3) [3Q].

Mr. JONES

*Prerequisite:* General Engineering Drawing 2; Architecture 31, 32, 43.

45. **Graphic Statics.**—Elementary Graphic Statics; its application to trussed roofs, steel and masonry arches, domes. The graphical representation of reactions, bending moments, shear and deflection in beams. (For architects.) Ricker: *Notes on Graphic Statics*. *I*; (3) [W45; 1Q, 2Q, 3Q; 3 quarter hours].

Mr. PALMER, Mr. LIVESAY

*Prerequisite:* Theoretical and Applied Mechanics 14, 15, 16.

46. **Roofs.**—Wooden and steel roofs; determination of section of members; design of joints; mill and steel skeleton construction. *II*; (3) [3Q].

Mr. PALMER, Mr. LIVESAY

*Prerequisite:* Architecture 45.

**55. Building Sanitation.**—Plumbing, trap ventilation, removal of wastes; water closets; drains and systems of water supply; sewage disposal; water supply and fixtures in dwellings. (For architects.) Cosgrove: *Principles and Practise of Plumbing*. Recitations; lectures; designs for special problems. *II*; (1) [W55; 1Q; 1 quarter hour].

Mr. JONES

*Prerequisite:* Physics 9a-9b, 10a-10b; Architecture 43, 44.

**59. Domestic Architecture.**—(Given in connection with Home Economics 2.) Lectures; criticism. *I*. Assistant Professor NEWCOMB, and others

[60. **Special Lectures.**—Special lectures on architectural subjects. (For architects.) *II*; (1). Not given, 1918-19.

*Prerequisite:* Senior standing.]

**65-66. Theory of Architecture.**—Influence of function on architectural form; plan and elevation; problem analysis. Lectures; research; exercises. *I, II*; (1) [W65; 1Q, 2Q; 1 quarter hour; 66, 3Q].

Professor WELLS

*Prerequisite:* Registration in Architecture 25, 26.

**67. Theory of Form.**—Principles underlying arrangement of form; architectural ornament and composition, proportion and balance. *II*; (2) [67, 2Q, 2 quarter hours; 67a, 3Q].

Professor WELLS

*Prerequisite:* Senior standing in architecture.

**68. Specifications.**—General and special clauses and their arrangement; classifying material to facilitate writing specifications; practise in writing several sets; relations of the architect, owner, and builder; office organization; building ordinances; professional ethics. (For architects.) *I*; (3) [W68; 1Q; 3 quarter hours].

Professor PROVINCE

*Prerequisite:* Senior standing in architecture.

**99. Inspection Trip.**—*I*; (no credit) [3Q].

*Prerequisite:* Senior standing.

### Courses for Graduates

Entrance on graduate work in architecture presupposes the full undergraduate course in that subject. Semi-weekly conferences are held and additional instruction given in all courses as may be required.

**101. Architectural Construction.**—Design of special structures. *I, II*; ( $\frac{1}{2}$  to 1 unit). *Twice a week. Time to be arranged.*

Professor RICKER, Professor PROVINCE

**102. Sanitation of Buildings.**—Planning, design, and installation. *I*; ( $\frac{1}{4}$  to  $\frac{1}{2}$  unit). *Twice a week. Time to be arranged.*

Professor RICKER

**103. Advanced Architectural Graphics.**—*I, II*; (1 to 2 units). *Twice a week. Time to be arranged.*

Professor PROVINCE

**104. Architectural Design.**—Advanced course. *I, II*; (1 to 4 units). *Twice a week. Time to be arranged.*

Associate Professor CURTIS

**105. Architectural Practise.**—Contracts, specifications, and office methods. *I*; ( $\frac{1}{4}$  to  $\frac{1}{2}$  unit). *Twice a week. Time to be arranged.*

Professor PROVINCE

**106. Architectural History.**—Special research. *I, II*; ( $\frac{1}{2}$  to 2 units). *Twice a week. Time to be arranged.*

Professor RICKER

### ARCHITECTURAL ENGINEERING

**33. Architectural Drawing.**—Lettering; elements of architecture; walls, moldings, doors, windows, shades and shadows, perspective, the Orders, vaults, roofs, stairs; wash rendering, stereotomy, charcoal, drawing from the cast. Lectures and sketching. *I*; (3) [W33, 1Q, 3 quarter hours; 2Q, 2 quarter hours].

Mr. O'DONNELL

*Prerequisite:* General Engineering Drawing 1, 2.

**34. Design.**—(Elementary.) Rendered order and sketch problems; library research. *II*; (3) [3Q]. Mr. O'DONNELL

*Prerequisite:* Architectural Engineering 33.

**35-36. Design.**—(Intermediate.) Rendered plan and sketch problems; library research. *I, II*; (3) [W35, 1Q, 2 or 3 quarter hours; 35, 2Q, 3 quarter hours; 36, 3Q]. Mr. O'DONNELL

*Prerequisite:* Architectural Engineering 33, 34.

**43. Working Drawings.**—The growth, cutting, seasoning, working, and finishing of woods; structural and decorative properties; floors, walls, roofs, doors, windows, cornices, stairs, wainscoting, cabinet-work, interior finish; preparation of working drawings. (For architectural engineers.) *I*; (2) [W43, 1Q, 3 quarter hours; 2Q, 2 quarter hours]. Mr. JONES

*Prerequisite:* Architectural Engineering 31; General Engineering Drawing 2.

**44. Working Drawings.**—Materials for stone masonry; their uses, defects, qualities, and preparation; kinds of masonry and external finish; tools for stone cutting; brick masonry; bonds; terra cotta design, manufacture, and use; columns, beams, girders; joints and connections; preparation of working drawings. *II*; (2) [3Q]. Mr. JONES

*Prerequisite:* Architectural Engineering 33, 43; General Engineering Drawing 1, 2.

**45. Graphic Statics.**—Elements, and applications to forces; beams under fixed and moving loads. *I*; (3) [W45, 1Q, 3 or 4 quarter hours; 2Q, 3 quarter hours]. Mr. PALMER, Mr. LIVESAY

*Prerequisite:* Theoretical and Applied Mechanics 20; registration in Theoretical and Applied Mechanics 25.

**46. Advanced Graphic Statics.**—The analysis of masonry arches, domes, and vaults; large and unusual forms of roof trusses. *II*; (3) [3Q]. Mr. PALMER, Mr. LIVESAY

*Prerequisite:* Architectural Engineering 45.

**47. Architectural Engineering.**—Design and working drawings of trusses, members and joints, plate girders, chimneys; investigations of wind bracing. *I*; (5) [W47; 1Q, 2Q; 5 quarter hours]. Mr. PALMER

*Prerequisite:* Theoretical and Applied Mechanics 26; Architectural Engineering 44, 46.

**48. Architectural Engineering.**—Design and detail of footings; investigation of framed structures; working drawings. *II*; (5) [3Q]. Mr. PALMER

*Prerequisite:* Architectural Engineering 47.

**57. Fireproof Construction.**—Principles and design of fireproof construction; the advantages of each type. *I*; (2) [W57, 1Q, 3 or 5 quarter hours; 2Q, 4 quarter hours]. Mr. PALMER

*Prerequisite:* Theoretical and Applied Mechanics 26; Architectural Engineering 44, 46; registration in Architectural Engineering 47.

**58. Fireproof Construction.**—(Continuation of first semester's work.) Details and working drawings. *II*; (2) [3Q]. Mr. PALMER

*Prerequisite:* Architectural Engineering 47, 57; registration in Architectural Engineering 46.

**67. Building Sanitation.**—Plumbing, trap ventilation, removal of wastes; water closets; drains and systems of water supply; sewage disposal; water supply and fixtures in all types of buildings. (For architectural engineers.) Cosgrove: *Principles and Practice of Plumbing*. Recitations, lectures and quizzes; designs for special problems. *II*; (2) [W67; 1Q; 2 quarter hours]. Mr. JONES

*Prerequisite:* Physics 1a-3a, 1b-3b, Architectural Engineering 43 and 44.

**68. Estimates and Specifications.**—Methods of estimating, illustrated by problems; a study of specifications, their general and special clauses, relations of architect, owner, and builder. (For architectural engineers.) *II*; (4) [3Q]. Professor PROVINCE

*Prerequisite:* Senior standing in architectural engineering.

**99. Inspection Trip.**—*I*; (no credit) [3Q].

*Prerequisite:* Senior standing.

## ART AND DESIGN

EDWARD JOHN LAKE, B.S., *Assistant Professor*

CHARLES EARL BRADBURY, B.P., *Associate*

MARY MINERVA WETMORE, *Instructor*

GIDEON ROBERT FORBES, M.L.A., *Instructor*

**1. Freehand Drawing.**—Drawing in charcoal and pencil; perspective; light, shadows, shade, and reflections in monochrome; graphical representation. *I* or *II*; (3) [W1; 1Q, 2Q, 3Q; 4 quarter hours]. Assistant Professor LAKE, Mr. BRADBURY, Miss WETMORE

**2. Advanced Freehand Drawing.**—Drawing in tone; values, composition and technical expression. Outdoor sketching. *II*; (3) [2Q; 3 quarter hours]. Mr. BRADBURY

*Prerequisite:* Art and Design 1.

**3a-3b-3c. Anatomical Representation.**—Drawing from plaster models and from life; proportion, construction, composition, and action in the representation of the human figure. *I* or *II*; (3) [W3a, 3b, 3c; 1Q, 2Q, 3Q; 3 quarter hours]. Mr. BRADBURY

*Prerequisite:* Art and Design 1.

**4a-4b-4c. Water Color Painting.**—Still-life; flowers and out door sketching, with application to pictorial and decorative art. *I* or *II*; (3) [W4a, 4b, 4c; 1Q, 2Q, 3Q; 3 quarter hours]. Miss WETMORE

*Prerequisite:* Art and Design 1.

**5a-5b-5c. Drawing From Life.**—Monochrome, with application to pictorial and decorative purposes. *I* or *II*; (3) [W5a, 5b, 5c; 1Q, 2Q, 3Q; 3 quarter hours]. Miss WETMORE

*Prerequisite:* Art and Design 1, 3a or 3b or 3c.

**6a-6b-6c. Portrait in Oil Colors.**—Painting in oil colors from costumed models; portrait and character study. *I* or *II*; (3) [W6a, 6b, 6c; 1Q, 2Q, 3Q; 3 quarter hours]. Miss WETMORE

*Prerequisite:* Art and Design 1, 3a or 3b, 5a or 5b.

**7a-7b-7c. Still-Life in Oil Colors.**—Still-life; flowers and out door sketching, with application to pictorial and decorative art. *I* or *II*; (3) [W7a, 7b, 7c; 1Q, 2Q, 3Q; 3 quarter hours]. Miss WETMORE

*Prerequisite:* Art and Design 1, 2.

**8a-8b-8c. Modeling.**—Clay modeling of anatomical and decorative forms; plaster molds and models; sculptural art. *I* or *II*; (3) [W8a, 8b, 8c; 1Q, 2Q, 3Q; 3 quarter hours]. Assistant Professor LAKE

*Prerequisite:* Art and Design 1.

**10. Sketching.**—Practise in pen, pencil, wash, charcoal, pastel; requirements for reproduction; technical methods in sketching from still-life, landscape and figure. *II*; (1) [2Q, 3Q; 1 quarter hour]. Mr. BRADBURY

*Prerequisite:* Art and Design 1.

**12. Design.**—Theory of pure design and the effect of material on execution; fitness of various forms of media for different sorts of design; space division and space relations; color; color schemes and exercises; conventionalization of natural forms for various functions; practise in execution. *I* or *II*; (3) [W12; 1Q, 2Q, 3Q; 3 quarter hours]. Mr. FORBES

*Prerequisite:* Art and Design 1.

**14. Applied Design.**—(Practise.) Organic design as applied in crafts as stencil, batik, block printing, wood carving, painted boxes, leather applique, embroidery, or in commercial art, as posters, bookplates, book-covers; conventional landscape painting. *I* or *II*; (3) [W14; 1Q, 2Q, 3Q; 3 quarter hours]. Mr. FORBES

*Prerequisite:* Art and Design 1, 12.

**19. History of Fine Arts.**—The periods and styles of the arts of architecture, sculpture, and painting previous to the Italian Renaissance. *II*; (2) [2Q, 3Q; 2 quarter hours].

Assistant Professor LAKE

*Prerequisite:* One year of college work.

**20. History of Fine Arts.**—The periods and styles of the arts of architecture, sculpture, and painting of the Italian Renaissance and to the present time. *II*; (2) [2Q; 2 quarter hours]. Assistant Professor LAKE

*Prerequisite:* One year of college work.

### Summer Session Courses

**S 1. Elementary Art.**—Form drawing from still-life, cast, and nature; outline and shading in pencil, charcoal, and crayon; lectures on perspective. (3).

Assistant Professor LAKE

**S 9. Art for the Common Schools.**—The planning and execution of work in common-school art study; design; black-board drawing. Lectures on organization, equipment, and the administrative side of the supervisor's work. (1).

Assistant Professor LAKE

**S 12. Design.**—(2).

Assistant Professor LAKE

**S 20. History of Fine Arts.**—(2).

Assistant Professor LAKE

### ASSYRIAN

(See ORIENTAL LANGUAGES AND LITERATURE.)

### ASTRONOMY

JOEL STEBBINS, Ph.D., *Professor*

ELMER DERSHEM, Ph.D., *Instructor*

No major for undergraduates is offered in astronomy. Students may well make mathematics or physics their major, and take Astronomy 7, 8, 14, and 15 as a minor.

Students ordinarily begin with course 1, but those who have had laboratory physics may elect course 2.

#### Courses for Undergraduates

**1. Elementary Astronomy.**—Lectures; recitations; one evening a week at the observatory. *I*; (3) [W1; 1Q, 2Q, 3 quarter hours]. Professor STEBBINS, Dr. DERSHEM

*Prerequisite:* Mathematics 4.

**2. General Astronomy.**—Continuation of course 1 with more observational practise; two evenings a week at the observatory. *II*; (3) [3Q; 3 quarter hours]. Dr. DERSHEM

*Prerequisite:* Astronomy 1, or Physics 3a.

**6. Navigation.**—Piloting, dead reckoning, latitude and longitude by astronomical observations; use of compass and sextant. *I* or *II*; (3) [W6; 1Q, 3Q; 3 quarter hours].

Professor STEBBINS

*Prerequisite:* Mathematics 4, sophomore standing.

#### For Advanced Undergraduates and Graduates

**[7-8. Theoretical Astronomy.**—Celestial mechanics; theory of orbits; perturbations. *I*, *II*; (3). Not given, 1918-19. Professor STEBBINS

*Prerequisite:* Mathematics 9.]

**14. Observational Astronomy.**—The working methods of an astronomical observatory; individual problems. *II*; (3) [3Q; 3 quarter hours]. Professor STEBBINS

*Prerequisite:* Astronomy 15.

**[15. Geodetic Astronomy.**—The sextant, transit, and zenith telescope; methods similar to those of the United States Coast Survey. *I*; (3). Not given, 1918-19.

Professor STEBBINS

*Prerequisite:* Mathematics 7.]

### Courses for Graduates

**101. Seminar and Thesis.**—Three times a week; *I, II*; (1 unit) [W101; 1Q, 2Q, 3Q;  $\frac{1}{4}$  unit]. Professor STEBBINS

**[102. Stellar Astronomy.**—Orbits of binary stars; variable stars; theoretical photometry. Three times a week. *I, II*; (1 unit). Not given, 1918-19. Professor STEBBINS]

## BACTERIOLOGY

(A division of the Department of BOTANY.)

FRED WILBUR TANNER, Ph.D., *Associate*

RUTH SCOVELL FUNK, B.S., *Assistant*

NOTE.—No major is offered for the present in bacteriology for undergraduates.

**2. Sanitary Science.**—Lectures, demonstrations, recitations, and assigned readings on the relations of bacteria, yeasts, and molds to sanitation, agriculture, home economics and communicable diseases. This course is designed for those who do not wish to take extended work in bacteriology but who wish an insight into matters of practical everyday importance such as sterilization and disinfection, water and sewage treatment, food hygiene and poisoning, communicable diseases, federal, state and local health organizations, etc. *I*; (2) [W2; 1Q; 2 quarter hours]. Dr. TANNER

**5. Introductory Bacteriology.**—Morphology and physiology of bacteria and related microorganisms; technic of cultivation and observation. *I* or *II*; (5) [W5; 1Q, 2Q, 3Q; 5 quarter hours]. Dr. TANNER, Miss FUNK

*Prerequisite:* Chemistry 2a.

### Courses for Advanced Undergraduates and Graduates

**8. Applied Bacteriology.**—Decay of organic matter in nature; soil and sewage bacteria; food bacteria; water bacteria; pathogenic bacteria. Laboratory; lectures; assigned readings; reports. *II*; (5) [3Q; 5 quarter hours]. Dr. TANNER, Miss FUNK

*Prerequisite:* Bacteriology 5, or equivalent. Satisfactory training in chemistry.

**18a-18b. Journal Meeting.**—Required of all graduate students who major in general and pathological bacteriology. *I, II*; (1) [3Q; 1 quarter hour]. Dr. TANNER

*Prerequisite:* Bacteriology 5, or equivalent.

**20. General Bacteriology.**—(For advanced students, and graduate students who do not major in bacteriology.) Laboratory methods, technic of cultivation and observation and study of biochemical reactions. Laboratory; lectures; assigned readings; reports from Lafar: *Handbuch der technischen Mykologie*, and Kruse: *Allgemeine Mikrobiologie*. *I*; (5) [W20; 1Q, 2Q; 5 quarter hours]. Dr. TANNER

*Prerequisite:* Two years of college chemistry; senior standing.

**26. Pathological Bacteriology.**—Cultural and morphological characteristics of disease-producing organisms. Theories of immunity and serum reactions. Routine diagnostic procedure. *II*; (3) [2Q; 3 quarter hours]. Dr. TANNER, Miss FUNK

*Prerequisite:* Bacteriology 1 or 5; junior standing.

**27. Epidemiology.**—The ways in which communicable diseases are spread; methods of control. Lectures; assigned readings and reports. *I*; (2) [2Q; 2 quarter hours].

Dr. TANNER

### Courses for Graduates

The work outlined below is open only to graduate students who have had at least one year's work in bacteriology and satisfactory training in chemistry.

**103. Physiology of Bacteria.**—Fermentation; growth and death of bacteria. *Once a week; I; (1 unit) [3Q]*. Dr. TANNER

**107. Research in Bacteriology.**—This course is designed especially for students who are taking a major in bacteriology either for the doctor's degree or the master's degree. Thesis work may be taken in any of the fields in bacteriology indicated below. *Once a week; I, II; (½ to 4 units). Time to be arranged. [W107; 1Q, 2Q, 3Q]*.

General Bacteriology.....	Dr. TANNER
Dairy Bacteriology.....	Professor HARDING
Pathogenic Bacteriology.....	Dr. TANNER
Plant Pathology.....	Professor STEVENS
Water and Sewage Bacteriology.....	Professor MONFORT

### BANKING

(See ECONOMICS.)

### BIOLOGY

(See BOTANY, ENTOMOLOGY, PHYSIOLOGY, and ZOOLOGY.)

### BOTANY

(See also BACTERIOLOGY.)

WILLIAM TRELEASE, D.Sc., LL.D., *Professor*  
 CHARLES FREDERICK HOTTES, Ph.D., *Professor*  
 FRANK LINCOLN STEVENS, Ph.D., *Professor*  
 WALTER BYRON McDUGALL, Ph.D., *Assistant Professor*  
 FRED WILBUR TANNER, Ph.D., *Associate (Bacteriology)*  
 STELLA MARY HAGUE, Ph.D., *Instructor*  
 MARY EMMA RENICH, A.M., *Assistant*  
 EDWIN ROLLIN SPENCER, M.S., *Assistant*  
 RUTH SCOVELL FUNK, B.S., *Assistant (Bacteriology)*  
 HELEN ANASTASIA MCGINNIS, A.B., *Assistant*  
 ALFRED CHARLES VOGELE, B.S., *Assistant*  
 DOROTHY JOSEPHINE CASHEN, B.S., *Assistant*

**Major:** 20 hours exclusive of Botany 1 and 4, made up of courses grouped in general along one of six lines, according to the suggestions given below.

**Minor:** 20 hours chosen from chemistry, entomology (exclusive of 1a and 1b), geology, physics, physiology, and zoology, in consultation with the department of botany. At least eight hours must be offered in one subject.

Courses offered are of four types; the first intended to meet the needs of beginners; the second laying a foundation for methods of accuracy in observation, manipulation and experimentation through the study of some fundamentally important subdivision of the science; the third giving practise in methods of investigation by the study of advanced problems varied to suit the needs and interests of the student; and the fourth teaching independent research by means of thesis investigation leading to the discovery of new facts or laws.



The work of any semester may be credited separately except when a problem is left incomplete in one of the courses open to graduates.

For the convenience of undergraduates in the College of Liberal Arts and Sciences who elect major work in botany the following combinations of courses are suggested:— (a) General; 2a, 4a, 23, 27a, and 27b; (b) Specializing in morphology; 2a, 2b, 3a, 4a or 4b or 24, and 29; (c) Specializing in pathology; 2a or 3a, 7a, 7b, 28a or 28b, 4a, or 17, or 21; (d) Specializing in physiology; 3a, 27, 9a or 9b; (e) Specializing in taxonomy; 2a, 4a, or 4b, 16b or 17, or 26, or 28; (f) Specializing in ecology; 4a, 23, 24, 25, and 27a.

Students taking botany as a foundation for agronomy or horticulture are advised to select courses 27a, 4a, 7a, and advanced work on some special topic or topics under courses 7b, 9, 17, or 22b. Students who expect to teach botany are advised to elect 2a, 4a, 23, 27a or 27b, and advanced work in one or more of the special courses 9, 16, 17, or 25.

The prerequisite for major work in botany in the Graduate School is 20 semester hours in botany or 15 hours in botany plus 5 hours in zoology or entomology.

### Courses for Undergraduates

**1. General Botany.**—The structure, physiology, natural history and uses of plants. Lectures, quiz, laboratory. *I* or *II*; (5) [W1; 1Q, 2Q, 3Q; 5 quarter hours].

Professor TRELEASE, Assistant Professor McDUGALL, and assistants

**2a. Morphology of Thallophytes.**—Comparative laboratory study of types of the lower plants.

This and the following course are intended to give personal acquaintance with the vegetable kingdom through the study of living types selected so as to present in natural sequence the increasing complexity of structure and function which marks evolutionary development. *I*; (5) [W2a; 1Q, 2Q; 5 quarter hours].

Dr. HAGUE

*Prerequisite:* Botany 1.

**2b. Morphology of Cormophytes.**—Comparative laboratory study of selected types of the higher plants. *II*; (5) [3Q; 5 quarter hours].

Dr. HAGUE

*Prerequisite:* Botany 1.

**3a. Plant Anatomy, Histology, and Technic.**—The foundation of an exact knowledge of plant structure, especially of protoplasts and their parts and the behavior and relations of the nucleus; the best methods of fixing, sectioning, staining, and examining tissues, modeling from serial sections, and photo-micrography. *II*; (5) [2Q; 5 quarter hours].

Professor HOTTES, Dr. HAGUE

*Prerequisite:* Botany 1.

**4. The Local Flora.**—Morphology, identification, and classification of wild plants. A laboratory and field course for students desiring personal acquaintance with the plants of Illinois, and especially for those qualifying as teachers in the public schools. *II*; (3) [3Q; 3 quarter hours].

Dr. HAGUE

*Prerequisite:* Botany 1.

**4a. Taxonomy of Cormophytes.**—Structure, identification, and classification of higher plants. Laboratory studies chiefly of flowering plants. *II*; (5) [3Q; 5 quarter hours].

Professor TRELEASE

*Prerequisite:* Botany 1.

**[4b. Taxonomy of Algae and Bryophytes.**—Structure, identification and classification. *I*; (5). Not given, 1918-19.

Dr. HAGUE

*Prerequisite:* Botany 1.]

**4d. Trees and Shrubs of the Campus.**—A systematic study of the woody plants most used for decorative purposes. *I*; (3) [W4d; 1Q, 2Q; 3 quarter hours].

Professor TRELEASE

*Prerequisite:* Botany 1.

- 7a. Plant Pathology.**—Causal agents, symptoms, diagnosis, and treatment. *I* or *II*; (5) [W7a; 1Q, 2Q; 5 quarter hours]. Professor STEVENS

*Prerequisite:* Botany 1.

- W7x. Plant Pathology.**—For S.A.T.C. men. *I*; (3) [1Q; 3 quarter hours].

Professor STEVENS

*Prerequisite:* High-school botany.

- 23. Plant Ecology.**—The life of plants in their natural habitats, in relation to environment, to animals, and to each other. Lectures; laboratory; field work. *I*; (3) [W23; 1Q, 2Q; 3 quarter hours]. Assistant Professor McDUGALL

*Prerequisite:* Botany 1.

- 24. Taxonomy and Ecology of the Higher Fungi.**—Structure, identification, classification, and ecological relations. Special attention is given to edible and poisonous mushrooms. Lectures; laboratory; field work. *II*; (3) [3Q; 3 quarter hours]. Assistant Professor McDUGALL

*Prerequisite:* Botany 1.

- 27a. Plant Physiology.**—The absorption of materials from the external world and their transformation within the organism; the production and the use of food. *I*; (5) [W27a; 1Q, 2Q; 5 quarter hours]. Professor HOTTES

*Prerequisite:* Botany 1.

- 27b. Plant Physiology.**—The response of the plant to external stimuli. *II*; (3) [3Q; 3 quarter hours]. Professor HOTTES

*Prerequisite:* Botany 1.

- 30. Methods of Teaching.**—Participation in elementary laboratory instruction and in conferences of department staff; seminar. *I*; (2) [W30; 1Q; 2 quarter hours].

Professor TRELEASE and Assistant Professor McDUGALL

*Prerequisite:* 15 hours of botany; senior standing.

### Courses for Advanced Undergraduates and Graduates

Students who take courses open for credit to graduates are advised to register also for Botany 10a-10b, the weekly meeting devoted to current literature in botany, which is obligatory for candidates for an advanced degree with botany as a major subject.

Candidates for advanced degrees in botany must offer for admission to the graduate courses 20 hours of college work in botany or 15 hours in botany plus 5 hours in zoology or entomology.

Graduate students who elect botany for minor credit must offer the prerequisite for courses which they take for graduate credit.

- 7b. Methods in the Study of Fungi.**—Methods of isolation, cultivation, and inoculation of fungi and bacteria. *II*; (5) [3Q; 5 quarter hours]. Professor STEVENS

*Prerequisite:* 10 hours of botany, including Botany 7a; junior standing.

- 9a-9b. Plant Anatomy or Physiology.**—Problems for those specializing either in anatomy with technic, or in physiology, or in the application of these to plant breeding, crop production, and forestry. *I, II*; (3 to 5) [W9a-9b; 1Q, 2Q, 3Q; 3 to 5 quarter hours].

Professor HOTTES

*Prerequisite:* 10 hours of botany, including Botany 27a or 27b; junior standing.

- 10a-10b. Current Botanical Literature.**—A weekly review covering the field of botany; supplementary to the various seminar conferences. *I, II*; (1) [W10a-10b; 1Q, 2Q, 3Q; 1 quarter hour].

Professors TRELEASE, HOTTES, STEVENS, Assistant Professor McDUGALL, Dr. HAGUE

*Prerequisite:* Concurrent taking of some course in botany open for graduate credit.

**14a-14b. Heredity, Variation, Evolution.**—Cells and members of plants; adaptation and changes; mechanism of heredity; evolution. *I, II; (2) [3Q; 2 quarter hours].*

Professor HOTTES

*Prerequisite:* 10 hours of botany, including Botany 3a; junior standing.

**16b. Taxonomy and Morphology of Algae and Bryophytes.**—Advanced practise on selected groups. *II; (3 to 5) [W16b; 3Q; 3 to 5 quarter hours].*

Dr. HAGUE

*Prerequisite:* 10 hours of botany, including 2a or 4b; junior standing. For graduate students in chemistry, 5 hours of biology and 10 hours of physical science, including manipulation of instruments, or 15 hours of physical science.

**17a-17b. Taxonomy of Cormophytes.**—Advanced practise on selected taxonomic or economic groups: genera or families of Illinois plants, or plants economically important as weeds, forest resources, adjuncts to medicine, farm, orchard, or garden crops, or as the basis of floriculture, landscape architecture, street shading or other decorative planting. *I, II; (3 to 5) [W17; 1Q, 2Q, 3Q; 3 to 5 quarter hours].*

Professor TRELEASE

*Prerequisite:* 10 hours of botany, including 4a; junior standing.

**22a. Morbid Histology.**—The parasites of plant tissues and their histology in condition of disease. *I; (3 to 5) [W22a; 1Q; 3 to 5 quarter hours].*

Professor STEVENS

*Prerequisite:* Botany 3a and 7a; junior standing.

**22b. Groups of Fungi and Crop Diseases.**—Laboratory. *II; (3 to 5) [2Q, 3Q; 3 to 5 quarter hours].*

Professor STEVENS

*Prerequisite:* 10 hours of botany, including 7a; junior standing.

**25a-25b. Plant Ecology.**—Advanced studies in the ecology of plants or of plant communities. *I, II; (3 to 5) [W25; 1Q, 2Q, 3Q; 3 to 5 quarter hours].*

Assistant Professor McDUGALL

*Prerequisite:* Botany 23 and 27a; junior standing.

**26. Taxonomy of the Higher Fungi.**—Advanced practise on selected groups. *I; (3) [W26; 1Q; 3 quarter hours].* Given in 1918-19 and in alternate years.

Assistant Professor McDUGALL

*Prerequisite:* Botany 2a and 24; junior standing.

**28a-28b. Taxonomy of Economic Fungi.**—Advanced practise on selected groups of parasitic fungi. *I, II; (3 to 5) [W28a-28b; 1Q, 2Q, 3Q; 3 to 5 quarter hours].*

Professor STEVENS

*Prerequisite:* 10 hours of botany, including 7a; junior standing.

**29a. Comparative Morphology of Pteridophytes, Gymnosperms, and Angiosperms.**—*I; (3) [W29a; 1Q or 2Q, 3Q; 3 quarter hours].*

Dr. HAGUE

*Prerequisite:* 10 hours of botany, including 2b or 4a; junior standing.

### Courses for Graduates

**101. Individual Plant Development.**—The influence of external agents on the cell. Special subjects for investigation are assigned on consultation. Reports and discussions of current literature and research results. *I, II; (½ to 2 units) [W101; 1Q, 2Q, 3Q].*

Professor HOTTES

**102. Physiology.**—The effects of external stimuli on growth and movement. Special subjects for investigation are assigned on consultation. Reports and discussions of current literature and research results. *I, II; (½ to 2 units) [W102; 1Q, 2Q, 3Q].*

Professor HOTTES

**104. Mycology.**—Fungi. Individual assignments of subjects and problems in field and laboratory. *I, II; (½ to 2 units) [W104; 1Q, 2Q, 3Q].*

Professor HOTTES

**106. Plant Pathology.**—Diseases of plants, and disease agents. Special subjects are assigned upon consultation. *I, II; ( $\frac{1}{2}$  to 2 units)* [W106; 1Q, 2Q, 3Q].

Professor STEVENS

**108. Taxonomy.**—Monographic studies of critical groups. *I, II; ( $\frac{1}{2}$  to 2 units)* [W108; 1Q, 2Q, 3Q].

Professor TRELEASE

**109. Ecology.**—The interrelations of plants with their environment. Individual subjects for investigation. *I, II; ( $\frac{1}{2}$  to 2 units)* [W109; 1Q, 2Q, 3Q].

Assistant Professor McDougall

### Summer Session Courses

(For description of courses, wholly or in part, see corresponding numbers in the description of courses in the regular session.)

**S 1. General Botany.**—(4).

Assistant Professor McDougall

**S 27a. Plant Physiology.**—(4).

Professor Hottes

*Prerequisite:* Botany 1 or its equivalent.

**S 9b. Plant Physiology.**—(2 to 3).

Professor Hottes

*Prerequisite:* 10 hours of botany, including 27a or its equivalent; junior standing.

**S 25. Plant Ecology.**—(2 to 3).

Assistant Professor McDougall

*Prerequisite:* 10 hours of botany, including Botany 23, or its equivalent; junior standing.

**S 102. Plant Physiology.**—( $\frac{1}{2}$  to 1 unit).

Professor Hottes

## BUSINESS LAW

(See BUSINESS ORGANIZATION AND OPERATION.)

## BUSINESS ORGANIZATION AND OPERATION

(Including ACCOUNTANCY and BUSINESS LAW.)

HIRAM THOMPSON SCOVILL, A.B., C.P.A., *Assistant Professor*

ROBERT ENOCH HIERONYMUS, A.M., LL.D., *Community Adviser; Lecturer on commercial and civic organizations*

ANANIAS CHARLES LITTLETON, A.M., *Instructor*

CHARLES LE DEUC, LL.B., Ph.D., B.A.M., *Instructor*

WILLIAM EVERETT BRITTON, A.M., I.D., *Instructor*

LLOYD MOREY, A.B., C.P.A., *Instructor*

HENRY H BAILY, Ph.B., *Assistant*

JOHN G EPPINGER, A.B., *Assistant*

ESTHER CLEMENTS, B.S., *Assistant*

### A. ACCOUNTANCY

#### Courses for Undergraduates

**1a-1b. Principles of Accounting.**—Accounting and bookkeeping; double entry; fundamental accounts and books. *Students who present one unit of bookkeeping for entrance will not be allowed credit for 1a and should register in the second semester in 1b.* Except in case of such students, credit is not given for either 1a or 1b separately. *I, II; (3)* [W1a, 1Q, 3 quarter hours; 2Q, 4 quarter hours; 1b, 2Q, 3 quarter hours; 3Q, 5 quarter hours; 1c, 3Q, 3 quarter hours].

Assistant Professor SCOVILL, Mr. BAILY, Mr. EPPINGER, Miss CLEMENTS

**2a-2b. Advanced Accounting.**—Fundamentals of cost accounting, theory of partnership and corporation accounts, depreciation, goodwill, reserves, and sinking funds; special financial statements, reading balance sheets, illustrative problems. Credit is not given for either semester separately. *I, II; (3)* [W2a, 1Q, 3 quarter hours; 2Q, 4 quarter hours; 2b, 2Q, 3 quarter hours; 3Q, 5 quarter hours; 2c, 3Q, 3 quarter hours].

Assistant Professor SCOVILL, Mr. LITTLETON, Dr. LE DEUC

*Prerequisite:* Accountancy 1a-1b; Economics 7 or 26, 22 or 27; registration or credit in Economics 1.

**[5a-5b. C. P. A. Problems.**—Representative problems of various types, including questions on theory and auditing. Credit is not given for either semester separately. *I, II; (2)*. Not given, 1918-19.

*Prerequisite:* Accountancy 3a-3b.]

**[10. Shop Management and Shop Cost Records.**—Cooperation between shop and cost departments; preparation and use of cost records; estimation of costs on contracts and calculation of profits. *II; (2)*. Not given, 1918-19.

Assistant Professor SCOVILL

*Prerequisite:* Open only to students in engineering who have had Economics 1 or 2.]

**11. Farm Accounting.**—The principles of accounting and distribution of costs as applied to farm operations; proper investment of funds. *I; (3)* [11a, 2Q, 3 quarter hours; 11b, 3Q, 3 quarter hours].

Assistant Professor SCOVILL

*Prerequisite:* Open only to students in agriculture who have had Economics 1 or 2.

### Courses for Advanced Undergraduates and Graduates

**3a-3b. Accounting Problems and Auditing.**—Consolidated balance sheets; liquidation; the auditor's duties; schedules and reports. Credit is not given for either semester separately. *I, II; (3)* [W3a, 1Q, 3 quarter hours; 3b, 2Q, 3 quarter hours; 3c, 3Q, 3 quarter hours].

Assistant Professor SCOVILL

*Prerequisite:* Accountancy 2a-2b; Economics 3; credit or registration in Business Organization and Operation 1.

**[4a-4b. Cost Accounting.**—Cost accounting applied to factory procedure, overhead expense, installation and control of cost systems, presentation of cost data; manufacturing efficiency; construction of cost systems. *I, II; (2)*. Not given, 1918-19.

*Prerequisite:* Accountancy 2a-2b, Economics 1.]

**13a-13b. Governmental Accounting.**—Accounts and systems of institutions and municipalities, and of the state and federal governments. Organization; procedure; budget, accounts and records, reports, audits; purchasing and storekeeping; training for Federal service. *I, II; (2)* [W13a, 1Q, 2Q, 3 quarter hours; 13b, 3Q, 3 quarter hours].

Mr. MOREY

*Prerequisite:* Accountancy 2a-2b.

### Summer Session Courses

**S 1a. Principles of Accounting.**—Accounting and bookkeeping. Accounting procedure. (3). Mr. LITTLETON

*Equivalent:* Accountancy 1a.

**S 15. Teachers' Course in Accounting.**—Methods of approach; adjustments, reserves, depreciation, goodwill, system-building. (Primarily for high-school teachers; others admitted by consent of instructor.) (2). Mr. LITTLETON

*Prerequisite:* One year of high-school bookkeeping or its equivalent.

## B. BUSINESS ORGANIZATION AND OPERATION

## Courses for Undergraduates

**1. Business Organization and Operation.**—Individual proprietorship, partnership, and cooperation; organizing a business; organization and efficiency; divisions and departments; departmental responsibility and authority, routine, and discipline. *I*; (3) [W5; 1Q; 2 quarter hours]. Professor ROBINSON<sup>1</sup>

*Prerequisite:* Economics 1 and Accountancy 2a-2b.

**2. Organization and Control of Mercantile Distribution.**—Organization and management of wholesale and retail establishments; supervision and control of mercantile distribution by business associations, consumers, and political units. *II*; (2) [3Q; 3 quarter hours]. Assistant Professor LITMAN<sup>1</sup>

*Prerequisite:* Business Organization and Operation 1; Economics 28.

**[3. Business Procedure.**—Cash and trade discounts; commissions; interest and discounts; checks, notes, drafts, and other instruments of credit and exchange; rules and procedure of banking institutions; mercantile and credit agencies. Office organization and management. *I*; (2). Not given, 1918-19.

*Prerequisite:* Business Organization and Operation 2.]

**[7. Salesmanship.**—Modern sales organizations; selling problems of manufacturers, wholesalers, and retailers; management of salesmen; the practise of individual salesmen. *I*; (2). Not given, 1918-19.

*Prerequisite:* Economics 1; Business Organization and Operation 1.]

**[8. Advertising.**—Cooperation of advertising and personal selling; special problems; sales campaigns; media; space buying; writing copy. *II*; (2). Not given, 1918-19.

*Prerequisite:* Business Organization and Operation 7.]

**[9. Commercial and Civic Organizations.**—(For students preparing for positions as secretaries of commercial or agricultural associations, civic or welfare clubs, and similar organizations.) *II*; (1). Not given, 1918-19.

*Prerequisite:* Economics 1, Business Organization and Operation 2 or Economics 28; or Economics 2 and Farm Management 1; or Economics 1, Political Science 4, and Sociology 8.]

**[10. Organization and Operation of Newspaper Publishing.**—Growth in the United States; number, kinds, and distribution of newspapers; national organization; buying and selling; advertising; circulation; cost accounting and office systems; shop management and labor problems. (For students specializing in journalism.) *II*; (2). Not given, 1918-19.

*Prerequisite:* Economics 1 or 2; junior standing.]

## Course for Advanced Undergraduates and Graduates

**[4. Industrial Organization and Management.**—Organization and administrative policy; supervision and management of industries and industrial units. Relations to labor, the community, and law. *II*; (2). Not given, 1918-19.

*Prerequisite:* Business Organization and Operation 2. Senior engineering students who have had Economics 1 or 2 may be admitted by permission of the instructor.]

## Courses for Graduates

**[101. Regulation and Control of Mercantile Distribution.**—Federal, state, and local regulation of mercantile business; unfair competition; trade agreements; trade mark; inspection of mercantile establishments; pure food acts; control over weights and meas-

<sup>1</sup>Of the Department of Economics.

ures, packing, storage, and shipment. *Twice a week. I, II; (1 unit).* Not given, 1918-19.]

[102. **Scientific Management.**—The history of the scientific management movement; critical study of the proposed systems; results of the application of scientific principles in the management of various types of business enterprise. *Twice a week; I, II; (1 unit).* Not given, 1918-19.]

#### Summer Session Course

**S 1. Business Organization and Operation.**—Partnerships, joint stock companies, corporations, trusts, pools, and combinations; regulation and control; rights and liabilities of members and officers, rights of creditors; problems in internal organization and conduct. (Not accepted for credit for students in the College of Commerce and Business Administration.) (2). Dr. BRITTON

#### C. BUSINESS LAW

##### Courses for Undergraduates

**1a-1b. Commercial Law.**—Contracts; negotiable instruments; agency; partnerships; business corporations; sales of personal property; bailments and carriers; guaranty and suretyship; insurance. *I, II; (3) [W1a, 1Q, 2Q, 3 quarter hours; 1b, 2Q, 3 quarter hours; 1c, 3Q, 3 quarter hours].* Dr. BRITTON

*Prerequisite:* Sixty hours of university credit, including Economics 1 and Accountancy 1a-1b.

**2. Elementary Law.**—Contracts; leases; landed property. (Open to junior and senior students in agriculture only.) *II; (3) [3Q; 3 quarter hours].* Dr. BRITTON

*Prerequisite:* Economics 1 or 2.

**3. Business Law.**—Contracts; negotiable instruments; agency; partnerships; corporations; sales of personal property; bailments and carriers; guaranty and suretyship; insurance; real property; landlord and tenant. (Open to junior and senior students in engineering only.) *II; (3).* [Combined with Business Law 2, 1918-19].

*Prerequisite:* Economics 1 or 2.

**10. Law of Banks and Banking.**—Powers of national, state and private banks; rights and liabilities of proprietors; officers; directors; rights of depositors, creditors and borrowers. *I; (2) [2Q; 3 quarter hours].* Dr. BRITTON

*Prerequisite:* Business Law 1a-1b.

#### Summer Session Course

**S 1. Commercial Law.**—Contracts; agency; sales; negotiable instruments; cases; readings and lectures. (Not accepted for credit for students in the College of Commerce and Business Administration.) (2). Dr. BRITTON

#### CERAMIC ENGINEERING

EDWARD WIGHT WASHBURN, Ph.D., *Professor, Ceramic Chemistry; Head of the Department*

CULLEN WARNER PARMELEE, B.S., *Professor, Ceramic Engineering*

RALPH KENT HURSH, B.S., *Assistant Professor, Ceramic Engineering*

EARL EMANUEL LIBMAN, B.S., *Assistant*

JOSEPH JOHNSON, *Potter and Laboratory Assistant*

The courses offered by the department of ceramic engineering are designed to give a technical knowledge of the composition and properties of materials used in the manufacture of claywares, cements, glasses, and enamels, and to acquaint the student with the construction, equipment, and operation of ceramic plants.

Graduates of courses other than ceramic engineering who have the necessary pre-requisites may take the following courses for minor credit: 3, 5, 6, 8, 10, 13, 15, 16, 19 and 20.

### Courses for Undergraduates

**1. Ceramic Materials.**—The properties of clays and other ceramic materials; the identification of the varieties met in practical work. Lectures; laboratory. *I*; (3) [W1, 1Q, 4 quarter hours; 1a, 2Q, 3 quarter hours; 1b, 2Q, 2 quarter hours; 1c, 3Q, 3 quarter hours]. Professor PARMELEE, Mr. LIBMAN

*Prerequisite:* Chemistry 4.

**2. Winning and Preparation of Clays.**—Machinery and processes used in preparing clay for market or manufacture; comparative costs of the different methods. *I*; (3) [W2, 2a, 2b; 1Q, 2Q, 3Q; 3 quarter hours]. Assistant Professor HURSH

*Prerequisite:* Registration in Ceramic Engineering 1.

**3. Industrial Calculations.**—Chemical and physical calculations applying to the operation of furnaces, kilns, and dryers, temperature measurements. *II*; (3) [3a; 3Q; 3 quarter hours]. Assistant Professor HURSH

*Prerequisite:* Ceramic Engineering 1, 2; Physics 1a-1b and 3a-3b.

**4. Drying and Burning.**—The chemical and physical processes involved and types of equipment used in drying and burning ceramic products. *I*; (4) [W4, 1Q, 5 quarter hours; 4b, 2Q, 4 quarter hours]. Assistant Professor HURSH

*Prerequisite:* Ceramic Engineering 1, 2, 3.

**5. Ceramic Bodies.**—Composition and properties of ceramic body mixtures; effects of various ingredients; development of special bodies. Lectures; laboratory. *II*; (5) [5a, 2Q, 3 quarter hours; 5b, 3Q, 5 quarter hours]. Professor PARMELEE, Mr. LIBMAN

*Prerequisite:* Ceramic Engineering 1, 2.

**6. Glazes.**—The various classes of glazes and enamels; the composition, limits, properties, and defects. Lectures, laboratory. *I*; (6) [W6, 1Q, 5 quarter hours; 6a, 6b, 2Q, 4 quarter hours; 6c, 3Q, 5 quarter hours]. Professor PARMELEE, Mr. LIBMAN

*Prerequisite:* Ceramic Engineering 3, 5.

**8. Glass.**—Raw materials, preparation, compounding, melting, and shaping; chemical principles involved in the manufacture and decoration of the various types of vitreous silicates. Lectures. *II*; (2). Professor WASHBURN

*Prerequisite:* Ceramic Engineering 6.

**9. Ceramic Construction.**—Plans, specifications, and estimates for ceramic equipment and industrial plants. *II*; (4) [9a, 3Q; 5 quarter hours]. Assistant Professor HURSH

*Prerequisite:* General Engineering Drawing 2; Ceramic Engineering 3, 4.

**10. Cements.**—Cements, limes, plasters; composition, reactions; methods of manufacture and testing. *I*; (3) [10a; 2Q; 3 quarter hours]. Assistant Professor HURSH

*Prerequisite:* Ceramic Engineering 1, 2, 3.

**11. Thesis.**—*II*; (3 to 5).

Professor WASHBURN, Professor PARMELEE, Assistant Professor HURSH

**12. Designing and Shaping.**—Die construction; templates; master and working molds for pressing, casting, and jiggering. *II*; (3). Assistant Professor HURSH

*Prerequisite:* Ceramic Engineering 1, 2.

**13. Cement Laboratory.**—The preparation of silicate cements and the study of their properties. *II*; (3) [13a; 3Q; 3 quarter hours]. Assistant Professor HURSH

*Prerequisite:* Ceramic Engineering 10.



**15. Glass Laboratory.**—Soda-lime, potash-lime, lead, barium, and zinc silicates; boro-silicates; properties of fused and solidified glasses; practical glass problems. *II*; (3). Professor WASHBURN

*Prerequisite:* Ceramic Engineering 6. Registration in Ceramic Engineering 8.

**16. Enamels.**—The various types of enamels, their composition, application, properties, and testing. Lectures, laboratory. *II*; (3) [16a; 3Q; 3 quarter hours].

Professor PARMELEE

*Prerequisite:* Ceramic Engineering 6.

**17. Physical Chemistry Applied to Ceramic Materials and Processes.**—Lectures; discussions; assigned reading. *I*; (4) [W17, 1Q, 4 quarter hours; 17b, 2Q, 3 quarter hours]. Professor WASHBURN

*Prerequisite:* Ceramic Engineering 3, or equivalent; Mathematics 8 or 7 and 9. Chemistry 3a or 4.

**19. Special Bodies.**—An intensive study of body preparation, the composition, preparation, properties, uses and testing of selected types of bodies. Lectures; laboratory. *II*; (3). Professor PARMELEE

*Prerequisite:* Ceramic Engineering 5.

**20. Refractory Materials.**—The properties and uses of refractory materials employed in the industries; relation between refractory power, chemical composition and physical condition; changes undergone by refractory materials at high temperatures. The subject will be presented as far as possible from the standpoint of the Phase Rule. Lectures, discussions, assigned reading. *II*; (2). Professor WASHBURN

*Prerequisite:* Ceramic Engineering 17 or Chemistry 31.

**99. Inspection Trip.**—Visits to industrial plants representative of various phases of ceramic work. *I*; (*no credit*) [3Q].

*Prerequisite:* Senior standing.

### Courses for Graduates

Graduate work leading to the degrees of Master of Science and Doctor of Philosophy in either chemistry (ceramic chemistry) or engineering (ceramic engineering) is offered by the department. Students who have specialized in chemistry, chemical engineering, or ceramic engineering during their undergraduate work will ordinarily be qualified to enter on graduate work leading to higher degrees in ceramic chemistry, while students who have specialized in mechanical engineering, ceramic engineering, or chemical engineering in their undergraduate work will ordinarily be qualified to pursue graduate work leading to the higher degrees in ceramic engineering. Graduate students who wish to elect ceramic chemistry as their major field of study must have had the equivalent of twenty-five semester hours in chemistry and this must include satisfactory courses in general chemistry, qualitative and quantitative analysis, and either physical or organic chemistry. Such students must also have had at least one year of college physics and a training in mathematics which includes calculus.

Candidates for the degree of Doctor of Philosophy with their major field of study in ceramic chemistry must fulfill the general requirements in chemistry as candidates in other branches of chemistry. They will also be expected to offer physical chemistry as one of their minor subjects. Before receiving the degree of Doctor of Philosophy, all such candidates must demonstrate their ability to read French and German literature in their major subject.

**101. The Chemistry of the Compounds of Silicon.**—Lecture and seminar. *Twice a week. I, II*; ( $\frac{3}{4}$  unit). Professor WASHBURN

*Prerequisite:* Elementary courses in organic and physical chemistry.

**103. Silicon Chemistry.**—A laboratory course to supplement Ceramic Engineering 101, which must precede or accompany it. *II; (1 to 2 units).* Professor WASHBURN

**102. General Technology of the Clay Industries.**—An advanced course dealing with the physical properties of ceramic materials and products in the light of their dependence upon chemical composition, mineralogical constitution, and physical condition. Lectures, seminar and laboratory. *I, II; (1 to 2 units).* Professor PARMELEE

*Prerequisite:* The elements of mineralogy and of physical chemistry.

**105. Technology of Glass.**—Glassy silicates; limiting composition; physical and chemical properties of glasses and the dependence of these properties upon composition. Lectures and laboratory. *(1 to 2 units.)* Professor PARMELEE

## CHEMISTRY

WILLIAM ALBERT NOYES, Ph.D., LL.D., *Professor and Director*

SAMUEL WILSON PARR, M.S., *Professor*

HARRY SANDS GRINDLEY, D.Sc., *Professor*

EDWARD BARTOW,<sup>1</sup> Ph.D., *Professor*

RICHARD CHASE TOLMAN,<sup>2</sup> Ph.D., *Professor*

WILSON FORSYTH MONFORT, A.M., *Acting Professor*

WILLIAM D HARKINS, Ph.D., *Lecturer*

DAVID FORD MCFARLAND, Ph.D., *Associate Professor*

GEORGE MCPHAIL SMITH, Ph.D., *Assistant Professor*

ROGER ADAMS,<sup>3</sup> Ph.D., *Assistant Professor*

B SMITH HOPKINS, Ph.D., *Assistant Professor*

HOWARD BISHOP LEWIS, Ph.D., *Assistant Professor*

GEORGE DENTON BEAL, Ph.D., *Assistant Professor*

OLIVER KAMM,<sup>4</sup> Ph.D., *Assistant Professor*

JOHN HENRY REEDY, Ph.D., *Assistant Professor*

THOMAS ERNEST LAYNG, Ph.D., *Associate*

HENRY GILMAN,<sup>5</sup> Ph.D., *Associate*

SILAS ALONZO BRALEY, Ph.D., *Instructor*

GERHARD DIETRICHSON, Ph.D., *Instructor*

ROSALIE MARY PARR, Ph.D., *Instructor*

DUANE TAYLOR ENGLIS, Ph.D., *Instructor*

RUTH ELIZA OKEY, Ph.D., *Instructor*

RALPH EMERSON RINDFUSZ, A.M., *Instructor*

ERNEST EDWARD CHARLTON,<sup>6</sup> Ph.D., *Instructor*

GLENN SEYMOUR SKINNER,<sup>7</sup> Ph.D., *Instructor*

MARION EMELINE SPARKS, A.M., B.L.S., *Library Assistant in Chemistry*

WILLIAM ALEXANDER VAN WINKLE, M.S., *Assistant*

RUSSELL STARKEY BRACEWELL, M.S., *Assistant*

HERBERT EPHRAIM FRENCH, A.M., *Assistant*

ALLEN EDWIN STEARN, A.M., *Assistant*

RUTH EVELYN MERLING, M.S., *Assistant*

SARGENT GASTMAN POWELL, M.S., *Assistant*

OTIS AVERY BARNES, B.S., *Assistant*

ROSSLEENE MERLE ARNOLD, A.M., *Assistant*

<sup>1</sup> On leave in National Service.

<sup>2</sup> Resigned.

<sup>3</sup> On leave in National Service, first quarter.

<sup>4</sup> On leave, second and third quarters.

<sup>5</sup> Second and third quarters.

<sup>6</sup> Second quarter.

<sup>7</sup> Third quarter.

MANSON JAMES BRADLEY, A.M., *Assistant*  
 JOHN ABERDEEN GUNTON, A.M., *Assistant*  
 OLIVE B JOHNSON, B.S., *Assistant*  
 FRANKLIN WALTER OLIN,<sup>1</sup> JR., M.E., *Assistant*  
 OWEN VERNON SHAFFER, B.S., *Assistant*  
 DELLA D JUNKIN, A.B., *Assistant*  
 GENEVIEVE STEARNS, B.S., *Assistant*  
 HELENE E DOTY, A.B., *Assistant*  
 RAYMOND EARLE WHITNEY,<sup>1</sup> B.S., *Assistant*  
 LUCIE EMMA ROOT,<sup>2</sup> B.A., *Assistant*  
 GEORGE OTTO OBERHELMAN,<sup>2</sup> M.A., *Assistant*  
 CARL ERIC SAMUEL STREM,<sup>2</sup> A.B., *Assistant*  
 LEO LEHR CARRICK,<sup>2</sup> A.M., *Assistant*  
 FRANK HAROLD MCCOMBS,<sup>2</sup> B.S., *Assistant*  
 ALBERT OTTO MATTHEWS,<sup>2</sup> B.S., *Assistant*  
 HOWARD MARION CHILES,<sup>2</sup> B.S., *Assistant*  
 NORRIS ONSLON TAYLOR,<sup>2</sup> B.S., *Assistant*  
 FRED RODGERS MCCRUMB,<sup>2</sup> B.S., *Assistant*  
 JOHN BERNIS BROWN,<sup>2</sup> M.S., *Assistant*  
 RUSSELL W MILLAR,<sup>3</sup> B.S., *Assistant*  
 ROSCOE HARLAN GERKE,<sup>3</sup> B.S., *Assistant*  
 GEORGE HOPKINS COLEMAN, B.S., *Research Assistant*  
 ESTHER A WAGNER, B.A., *Research Assistant*  
 BERTRAM FEUER, *Research Assistant*  
 CHARLES WILLIAM COLVER, M.S., *Graduate Assistant*  
 EDWARD ARTHUR JEUDE, B.S., *Graduate Assistant*  
 FLORENCE N SCHOTT, B.S., *Graduate Assistant*  
 THERESA MARIE RENNER,<sup>1</sup> B.S., *Graduate Assistant*  
 DEETTE ROLFE,<sup>1</sup> A.M., *Graduate Assistant*  
 ADAM A CHRISTMAN,<sup>2</sup> B.S., *Graduate Assistant*  
 FLOYD KINYON THAYER,<sup>2</sup> B.S., *Graduate Assistant*  
 NEULON DEAHL,<sup>4</sup> B.S., *Graduate Assistant*  
 GLADYS E MACDONALD,<sup>2</sup> B.S., *Graduate Assistant*  
 HAROLD WALKER LUCE,<sup>2</sup> A.B., *Graduate Assistant*  
 WALTER RAYMOND KIRNER,<sup>2</sup> B.S., *Graduate Assistant*  
 PAUL CURTIS GWINN,<sup>2</sup> B.S., *Graduate Assistant*  
 CARL SHIPP MARVEL, A.M., *Manufacturing Assistant*  
 HUBERT WATSON MOOR, B.S., *Manufacturing Assistant*

*Cooperating:*

EDWARD WIGHT WASHBURN, Ph.D., *Professor of Ceramic Chemistry*  
 HARRY SANDS GRINDLEY, D.Sc., *Professor of Animal Nutrition*  
 ALBERT LEMUEL WHITING,<sup>1</sup> Ph.D., *Associate Professor in Soil Biology*  
 FRANK ARCHIBALD WYATT,<sup>1</sup> Ph.D., *Assistant Professor in Soil Fertility*  
 PHILIP AUGUSTUS LEHENBAUER,<sup>1</sup> Ph.D., *Assistant Professor of Plant Physiology*  
 WILBUR ROY LEIGHTY,<sup>1</sup> B.S., *Associate in Soil Fertility*  
 STELLA MARY HAGUE,<sup>1</sup> Ph.D., *Instructor in Botany*  
 MICHAEL IVANOVITCH WOLKOFF,<sup>1</sup> Ph.D., *First Assistant in Soil Fertility*

<sup>1</sup> First quarter.

<sup>2</sup> Second and third quarters.

<sup>3</sup> Third quarter.

<sup>4</sup> Second quarter.

WILLEM RUDOLFS,<sup>1</sup> A.E., *Assistant in Agronomy*  
 MARY HELEN KEITH,<sup>1</sup> A.M., *Assistant in Animal Nutrition*  
 J LEONARD ST JOHN,<sup>1</sup> M.S., *Assistant in Soil Analysis*  
 EARL EMANUEL LIBMAN,<sup>1</sup> B.S., *Assistant in Ceramics*  
 MARY C STAPP,<sup>1</sup> A.B., *Assistant in Animal Nutrition*  
 JUSTA MORRIS LINDGREN,<sup>1</sup> M.A., *Chemist, Engineering Experiment Station*  
 LYNNE HERMAN ULICH,<sup>1</sup> M.S., *Fellow in Chemistry*  
 MINER MANLEY AUSTIN,<sup>1</sup> M.A., *Fellow in Chemistry*  
 WILLIAM LEE BENNETT,<sup>1</sup> A.B., *Stock Clerk, General Chemical Stores*  
 JOSEPH LOWE HALL,<sup>1</sup> *Student Assistant*  
 HORACE GROVE DEMING, Ph.D., *Associate (Summer Session)*  
 JESSIE YEREANCE CANN, Ph.D., *Associate (Summer Session)*  
 FREDERICK OSBAND ANDEREGG, Ph.D., *Instructor (Summer Session)*  
 LLOYD BRELSFORD HOWELL, M.S., *Assistant (Summer Session)*

**Major:** 20 hours, exclusive of Chemistry 1, 1a, 1b, 4, and 16, and inclusive of courses in quantitative analysis and organic chemistry.

**Minors:** 20 hours, chosen from bacteriology, botany, geology, mathematics, philosophy, physiology, physics, and zoology.

Students taking chemistry at the University are advised to give at least one year to the subject, and this should include Chemistry 1 or 1a, 2a or 3a. Those continuing in the second year should take Chemistry 5a and 5b, or 13a and 25. In the third year, Chemistry 14a, 14b, 14c, and 14d, or 9 and 9a, 31, and 33 should be taken. With these, more special courses may be taken if desired, but students are not advised to take the special courses unless they have had the fundamental work represented by the selection given above. Students who desire a training for professional work in chemistry, either as teachers or in its industrial applications, should take the curriculum in chemistry, or in chemical engineering.

Students who find it impossible to take more than one semester's work are requested to register in Chemistry 1 or 1a in the second semester rather than in the first.

**1. Inorganic Chemistry.**—The non-metallic elements. Noyes: *Text Book of Chemistry. I or II*; (5) [W1; 1Q, or 2Q; 5 quarter hours].

Professor NOYES, Assistant Professor HOPKINS, Assistant Professor REEDY, Dr. ROSALIE PARR, Dr. ENGLIS, Dr. CHARLTON, Dr. SKINNER, and assistants

*Prerequisite:* One unit of entrance credit in physics, or 2½ units entrance credit in mathematics or registration in mathematics 2 or 3.

**NOTE.**—Students who have received entrance credit for high-school chemistry are given only 3 hours credit for Chemistry 1.

**1a. Inorganic Chemistry.**—Lectures; recitations; laboratory. For students who have had one year of high-school chemistry. *I or II*; (3) [W1a; 1Q or 2Q; 3 quarter hours].

Professor NOYES, Assistant Professor HOPKINS, Assistant Professor REEDY, Dr. ROSALIE PARR, Dr. ENGLIS, Dr. CHARLTON, and assistants

*Prerequisite:* One unit of entrance credit in chemistry.

**NOTE.**—Students whose preparation proves to be inadequate for continuing this course will be required to change their registration to Chemistry 1. Students who have not used their high-school chemistry for entrance may receive 5 hours' credit for Chemistry 1a. Students who have failed in Chemistry 1, if permitted to register for Chemistry 1a, may receive 5 hours' credit, if their final grade is C or above.

**1b. Inorganic Chemistry.**—Lectures; recitations; laboratory. (For students in engineering.) *I or II*; (4) [W1b; 1Q; 4 quarter hours].

<sup>1</sup>First quarter.

Professor NOYES, Assistant Professor HOPKINS, Assistant Professor REEDY, Dr. ROSALIE PARR, Dr. ENGLIS, and assistants

NOTE.—Students who have credit for high-school chemistry should register for Chemistry 1a.

**2a. Inorganic Chemistry and Qualitative Analysis.**—Chemistry and qualitative analysis of the more common metals and inorganic compounds. Lectures; recitations; laboratory. *I* or *II*; (5) [W2a, 1Q; 2d, 2Q; 2e, 3Q; 5 quarter hours; 2f, 3Q; 6 quarter hours].

Professor NOYES, Assistant Professor HOPKINS, Assistant Professor REEDY, Dr. BRALEY, Dr. ROSALIE PARR, Dr. ENGLIS, Dr. CHARLTON, Dr. SKINNER and assistants

*Prerequisite:* Chemistry 1 or 1a.

**3a. Inorganic Chemistry and Qualitative Analysis.**—For students in chemistry and chemical engineering. *II*; (5) [3a, 2Q; 3b, 3Q; 5 quarter hours].

Professor NOYES, Assistant Professor HOPKINS, Assistant Professor REEDY, Dr. ROSALIE PARR, Dr. ENGLIS, and assistants

*Prerequisite:* Chemistry 1 or 1a.

**4. Qualitative Analysis and Chemistry of the Metallic Elements.**—Lectures; class; and laboratory work. (For students in engineering.) *I* or *II*; (4) [W4; 1Q, 2Q; 4 quarter hours; 4a, 3Q; 5 quarter hours; 4b, 3Q; 4 quarter hours].

Assistant Professor HOPKINS, Assistant Professor BEAL, Assistant Professor REEDY, Dr. ROSALIE PARR, Dr. ENGLIS, and assistants

*Prerequisite:* Chemistry 1a or 1b.

**5a. Elementary Quantitative Analysis.**—Gravimetric and volumetric analysis; stoichiometrical relations and the application of fundamental laws of chemistry to quantitative analysis. Lectures; recitations; laboratory. Talbot: *Quantitative Chemical Analysis*. *I* or *II*; (5) [W5a; 1Q; 2Q; 2c, 3Q; 5 quarter hours].

Assistant Professor SMITH in charge, Dr. BRALEY

*Prerequisite:* Chemistry 2a, or 3a, or 4.

**5b. Quantitative Analysis.**—(Continuation of Chemistry 5a.) Analysis of silicates, metallic ores, and alloys; advanced qualitative analysis. Lectures; recitations; laboratory. Treadwell-Hall: *Analytical Chemistry*, Vol. II. *II*; (5) [5b, 2Q; 5c, 3Q; 5 quarter hours].

Assistant Professor SMITH

*Prerequisite:* Chemistry 5a.

**6<sup>1</sup> Chemical Technology.**—Technological chemistry as illustrated in those industries having a chemical basis for their principal operations and processes; trade journals. Lectures; recitations. Rogers: *Industrial Chemistry*. *II*; (3) [3Q; 4 quarter hours].

Associate Professor MCFARLAND

*Prerequisite:* Chemistry 5a and 14a.

**7<sup>1</sup> Metallurgy.**—General metallurgy; metallurgy of iron and steel. Lectures; assigned reading; recitations. Fulton: *Principles of Metallurgy*; Stoughton: *Iron and Steel*. *I*; (3) [W7; 1Q; 4 quarter hours].

Associate Professor MCFARLAND

*Prerequisite:* Chemistry 5a. (Senior students in engineering courses may be admitted to this course by special arrangement, without this prerequisite.)

**7a. Metallurgy of the Non-Ferrous Metals.**—Copper, lead, zinc, gold, and silver. *II*; (3) [2Q; 4 quarter hours].

Associate Professor MCFARLAND

*Prerequisite:* Chemistry 7.

<sup>1</sup> Certain required inspection trips will be arranged in connection with courses 6 and 7. Students registered in these courses should take into consideration the expense involved, which will not exceed \$15.00 for each course.

9. **Elementary Organic Chemistry.**—Important compounds of carbon. *II*; (3) [3Q; 4 quarter hours]. Dr. RINDFUSZ

*Prerequisite:* Chemistry 2a or 3a.

9c. **Elementary Organic Chemistry.**—(Laboratory, to accompany Chemistry 9.) *II*; (2) [3Q; 3 quarter hours]. Dr. RINDFUSZ

*Prerequisite:* Chemistry 2a or 3a; registration in Chemistry 9, or equivalent.

[10a. **Water Chemistry.**—History, sources, contamination, and standards of purity of potable waters and waters for industrial purposes. Lectures; practise in analytical methods. *II*; (3). Not given, 1918-19. Acting Professor MONFORT

*Prerequisite:* Chemistry 5a or 13a.]

[10b. **Chemistry of Water and Sewage.**—The chemical analysis of potable waters and waters for industrial purposes. Lectures on the history, sources, contamination, and standards of purity. Chemical analysis of sewage and effluents from sewage treatment plants, for students in sanitary engineering, registered in connection with Civil Engineering 53. *I*; (2½). Not given, 1918-19. Acting Professor MONFORT

*Prerequisite:* Chemistry 4.]

11a-11b. **Thesis.**—Thesis, embodying a review of the literature of the subject, account of work done in the laboratory. The subject should be determined upon and reading begun in the junior year. A minimum of five semester hours is required. (Required of seniors in chemistry and chemical engineering.) *I, II*; (3 to 5)<sup>1</sup> [W11a-11b; 1Q, 2Q, 3Q; 3 to 5 quarter hours]. Professor NOYES in charge

13a. **Elementary Quantitative Analysis.**—Gravimetric and volumetric analysis, fertilizer and milk analysis. Lectures; recitations; laboratory. Talbot: *Quantitative Chemical Analysis*. (For students in agriculture.) *I or II*; (5) [13a; 2Q, 4 quarter hours; 3Q, 3 quarter hours]. Assistant Professor SMITH, Dr. BEAL, Dr. BRALEY

*Prerequisite:* Chemistry 2a, or 3a.

[13b. **Advanced Agricultural Analysis.**—Special methods in agricultural analysis; theory of the determinations; preparation of solutions; sampling; calculations. Treadwell: *Analytical Chemistry*, Vol. II. *II*; (5). Not given, 1918-19.

Assistant Professor BEAL

*Prerequisite:* Chemistry 5a or 13a.]

14a-14b. **Organic Chemistry.**—Lectures; recitations. Noyes: *Organic Chemistry*. *I*; (4); *II*; (2) [W14a, 1Q or 2Q; 4 quarter hours; W14b; 2Q or 3Q; 4 quarter hours].

Professor NOYES, Dr. GILMAN

*Prerequisite:* Chemistry 5a; should be accompanied by Chemistry 14c and 14d.

14c. **Organic Chemistry (Laboratory Work).**—Organic synthesis. (Formerly Chemistry 9a.) *I or II*; (2) [W14c; 1Q, 2Q, 3Q; 3 quarter hours]. Dr. GILMAN, Dr. RINDFUSZ

*Prerequisite:* Registration in Chemistry 14a, or equivalent.

14d. **Organic Chemistry (Laboratory Work).**—Organic synthesis, quantitative analysis, qualitative analysis. Continuation of Chemistry 14c, to accompany Chemistry 14b. (Formerly Chemistry 9b.) *I or II*; (2) [W14d; 1Q, 2Q, 3Q; 3 quarter hours].

Dr. GILMAN, Dr. RINDFUSZ

*Prerequisite:* Chemistry 14a, 14c; registration in Chemistry 14b, or equivalent.

15. **Physiological Chemistry.**—Enzymes; carbohydrates; salivary digestion; gastric digestion; fats; pancreatic digestion; intestinal digestion; bile; putrefaction products; feces; blood; milk; epithelial and connective tissues; muscular tissue; nervous tissue; urine. Qualitative and quantitative work on gastric juice, blood, urine, and milk; the

<sup>1</sup> In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

clinical aspects of these topics treated thoroly for prospective students of medicine. Lectures; demonstrations; conferences; practical work; assigned reading. Mathews: *Physiological Chemistry*; Hawk: *Practical Physiological Chemistry*. (Open to graduates and undergraduates.) *I*; (5) [W15a; 1Q or 2Q; 5 quarter hours; 15b; 2Q or 3Q; 4 quarter hours].

Assistant Professor LEWIS, Dr. OKEY

*Prerequisite:* Chemistry 5a or 13a; 9, or 14a-14b.

**15a. Problems of Metabolism.**—Variations of metabolism in health and disease; chemistry of the ductless glands; chemical methods of diagnosis; micro-analysis of blood, tissues, and urine. Lectures; conferences; laboratory. *II*; (3) [15c; 3Q; 3 quarter hours].

Assistant Professor LEWIS, Dr. OKEY

*Prerequisite:* Chemistry 15.

**16. Fuel, Gas, and Water Analysis for Engineers.**—The proximate analysis of coal; determination of calorific value; technical analysis of furnace gases; examination of boiler waters; lubricating oils. (For students in engineering.) *II*; (3) [3Q; 4 quarter hours].

Professor PARR

*Prerequisite:* Chemistry 4; junior standing.

**17. Teachers' Course.**—Methods of teaching Elementary Chemistry. Smith and Hall: *The Teaching of Chemistry and Physics*. *I*; (1) [2Q; 1 quarter hour].

Assistant Professor HOPKINS

*Prerequisite:* 13 hours chemistry and senior or graduate standing.

**21. Qualitative Organic Analysis.**—Systematic methods for identification of pure organic compounds and mixtures. *I*; (2) [W21; 1Q, 3Q; 3 quarter hours].

Assistant Professor KAMM, Dr. RINDFUSZ

*Prerequisite:* Chemistry 14a, 14b.

**25. Food Analysis.**—Quantitative organic analysis, with special reference to the examination of food products: alcohols, carbohydrates, fats and oils, cereals, nitrogenous bodies, preservatives, and colors. Sherman: *Organic Analysis and Food Products*. *I*; (5) [W25; 1Q; 5 quarter hours; 2Q; 2 quarter hours].

Assistant Professor BEAL

*Prerequisite:* Chemistry 5a or 13a; 9 or 14a-14b.

**26. Pharmaceutical Chemistry.**—The analytical chemistry of medicinal substances, with a discussion of the common types of pharmaceutical preparations. *United States Pharmacopoeia, Ninth Decennial Revision*. *II*; (3) [3Q; 5 quarter hours].

Assistant Professor BEAL

*Prerequisite:* Chemistry 14a-14b.

**27. Qualitative Analysis of the Rarer Elements.**—The rarer elements and their compounds; identification and separation of the elements; formation, solubilities, and chemical reactions of their salts. Lectures and laboratory. *II*; (3) [3Q; 3 quarter hours].

Assistant Professor HOPKINS, Dr. ROSALIE PARR

*Prerequisite:* Two years' work in chemistry.

**28. Advanced Qualitative Analysis.**—Methods of separation; qualitative reagents; theory of reactions. Designed especially for those intending to teach qualitative chemistry. Lectures and seminar. *I*; (2) [3Q; 2 quarter hours].

Assistant Professor HOPKINS

*Prerequisite:* Senior standing and Chemistry 31, or graduate standing.

**31. Elementary Physical Chemistry.**—The more important principles of physical chemistry and electrochemistry. Lectures; recitations; problems. Washburn: *Principles of Physical Chemistry*. *II*; (3) [3Q; 4 quarter hours].

Dr. DIETRICHSON

*Prerequisite:* Chemistry 1, 2a or 3a, 5a, 5b; Physics 1a-1b, or 7a-7b; Mathematics 7 or 8.

**33. Elementary Physical Chemistry.**—Molecular weight in gases and solutions; chemical equilibrium; the electrical conductivity of solutions and the attendant phe-

nomena within the solution; thermochemistry. (Laboratory to accompany course 31.) *II*; (2) [3Q; 3 quarter hours]. Dr. DIETRICHSON

*Prerequisite:* Chemistry 1, 2a or 3a, 5a, 5b; Physics 1a-1b, or 7a-7b; Mathematics 7 or 8.

**35. Electrochemistry.**—The theory of electrochemical reactions. Technical applications of electrochemistry, including electric furnace processes. Lectures, recitations, laboratory. *I*; (3) [2Q; 4 quarter hours]. Dr. DIETRICHSON

*Prerequisite:* Chemistry 31, 33.

**[36. The Phase Rule and its Applications.**—A study of equilibria in heterogeneous systems. Lectures and seminar. *II*; (2). Not given, 1918-19. Dr. DIETRICHSON

*Prerequisite:* Chemistry 31, 33; Mathematics 8, or 7 and 9.]

**[37. Problems in Physical and Electrochemistry.**—Work in the library or laboratory with conferences. *I*; (4). *Time to be arranged.* Not given, 1918-19.

*Prerequisite:* Chemistry 35 or 102a.]

**46. Chemistry of Plant Products.**—The occurrence of organic compounds in plants and their relation to plant nutrition. Lectures and laboratory. *Twice a week; II*; (2). Dr. ENGLIS

*Prerequisite:* Chemistry 9 and 9c or 14a and 14c.

**61. Industrial Chemical Laboratory.**—The preparation and purification of chemical products from raw materials on a scale sufficient to afford data for determining the economy of the processes employed. (Should be accompanied by either Chemistry 6 or 109.) *II*; (3) [3Q; 4 quarter hours]. Associate Professor MCFARLAND

*Prerequisite:* Chemistry 5a and 14a.

**65. Fuels and Flue Gases.**—Fuel inspection; gas analysis; determination of calorific values; calculation of efficiencies. *I*; (2) [2Q; 3 quarter hours].

Professor PARR, Dr. LAYNG

*Prerequisite:* Chemistry 5a.

**66. Gas Engineering.**—Gas machinery; ovens and appliances for carbonization; recovery of by-products. *II*; (1) [W66; 1Q; 1 quarter hour]. Professor PARR

*Prerequisite:* Chemistry 65. Registration in 66a is advised.

**66a. Control Processes in Gas Manufacture.**—Standardization methods and inspection. *II*; (1) [W66a; 1Q; 1 quarter hour]. Professor PARR

**69. Metallurgical Laboratory and Assaying.**—The fire assay of gold, silver, lead, and copper ores, mattes, and bullion; special experiments illustrating the underlying metallurgical principles; fluxes, slags, and charge calculations; practise in the use of coal, oil, and gas furnaces, and in the measurement of high temperatures. Fulton: *Manual of Fire Assaying.* *I*; (2) [W69; 1Q; 3 quarter hours]. Associate Professor MCFARLAND

*Prerequisite:* Chemistry 5a; Geology 20.

**72. Paints, Oils, Turpentine, Varnishes, and Protective Coverings for Wood and Metals.**—Lectures and laboratory. *I*; (2) [W72; 1Q; 3 quarter hours].

Professor PARR, Dr. LAYNG

*Prerequisite:* Chemistry 5a and 14a-14b.

**73. Asphalt, Tar, and Distillation Products.**—Sources, characteristics, composition, and examination; binders and dust preventives used in road construction. (For students in highway engineering.) *II*; (2) [3Q; 3 quarter hours]. Professor PARR, Dr. LAYNG

*Prerequisite:* Chemistry 2a or 4.

**76. Mineral Oils.**—Fractionation, analysis, evaluation for fuel, lubrication and gas manufacture. *II*; (2) [2Q; 3 quarter hours]. Professor PARR, Dr. LAYNG

*Prerequisite:* Chemistry 9a and 14a.



**77. Composition and Classification of Coal.**—Classification, changes in composition, weathering, spontaneous combustion, formation of mine gases. Lectures; assigned reading. *II*; (1) [3Q; 1 quarter hour]. Professor PARR

*Prerequisite:* Chemistry 65.

**78. Metallography.**—Constitution and microstructure of metals and alloys and the relations between their properties, chemical and mechanical treatment, and structure. Lectures; reading; laboratory. *II*; (2) [2Q; 3 quarter hours].

Associate Professor MCFARLAND

*Prerequisite:* Chemistry 7.

**[80. The Elements of Glass Blowing.**—Construction and repair of glass apparatus. *II*; (1). Not given, 1918-19.

*Prerequisite:* Two years' work in chemistry.]

**[86. The Chemistry of the Higher Order Compounds.**—Complex compounds from the standpoint of the Valence Theory as developed by Werner. *II*; (2). Not given, 1918-19. Assistant Professor SMITH

*Prerequisite:* Chemistry 9a, 9b, 14a-14b.]

**90-91. Chemical Inspection Trips.**—Required for juniors and seniors in the courses in chemistry and chemical engineering. For the year 1918-19 the trips took place on April 16 to 19, 1919. The expense involved will approximate fifteen to twenty-five dollars for each student. *II*; (*no credit*) [3Q; *no credit*].

Associate Professor MCFARLAND in charge

**92a-92b. Chemical Literature and Reference Work.**—Periods, leaders, journals. Required of juniors in chemistry and chemical engineering; required also of juniors who are majoring in chemistry. *I, II*; (1) [W92a, 1Q, or 2Q; 92b, 2Q; 92c, 3Q; 1 quarter hour]. Miss SPARKS

**93a-93b. Journal Meeting.**—Required of seniors and all graduate students in chemistry. All members of the staff of the department of chemistry are expected to attend. *I, II*; (1) [2Q, 3Q; 1 quarter hour]. Dr. BRALEY

**95. History of Chemistry.**—Lectures and assigned reading. *I*; (2) [3Q; 3 quarter hours]. Assistant Professor SMITH

### Courses for Graduates

Graduate students whose major subject is in some department other than chemistry, before taking graduate work for credit in this department, must have had the equivalent of 15 university credits in chemistry, and the ground covered should include satisfactory work in general chemistry, and in qualitative and quantitative analysis. Such students are advised to make selections from the following courses: Chemistry 31, 33 (or 102, 102a), 14a, 14b, 9a, 9b, 15, and 25. Courses of a more special nature will not, as a rule, be accepted for graduate work unless preceded by one of the above courses.

For students in agriculture, Chemistry 5a and 13a will not be accepted for graduate credit.

Graduate students who are candidates for an advanced degree in chemistry must have had the equivalent of 25 university credits in chemistry, properly distributed.

For students in chemistry, 5a, 13a, 9, and 9c will not be accepted for graduate credit and 9a, 9b, 14a-14b, 31, and 33 will be accepted only from students entering the Graduate School with the equivalent of 30 university credits in chemistry.

**101. Theories of Chemistry.**—Seminar. Origin and development of the principal theories of science. *Once a week. II*; ( $\frac{1}{4}$  unit) [3Q;  $\frac{1}{4}$  unit]. Professor NOYES

**102. Advanced Physical Chemistry.**—This course, with 102a, covers a period of two years. In the first year especial attention will be paid to: thermodynamic methods

of handling the problems of physical chemistry; the Nernst heat theorem; the concepts of energy, entropy, free energy, thermodynamic potential and fugacity; behavior of pure substances; solutions; heterogeneous systems; and chemical equilibria. Particular practice will be given in the calculation and use of free energy data. *Twice a week; I, II; ( $\frac{3}{4}$  unit)* [W102; 1Q, 2Q, 3Q;  $\frac{1}{2}$  unit].

Professor HARKINS

*Prerequisite:* Chemistry 1, 2a, or 3a; Physics 1a-1b, 3a-3b; Mathematics 8a or 7 and 9. An elementary knowledge of organic and physical chemistry is desirable.

[102a. **Advanced Physical Chemistry.**—(Continuation of Chemistry 102.) Kinetic-molecular methods; kinetic theory of gases; entropy and probability; the quantum theory; the molecular structures of liquids and solids; the electron theory. Lectures; seminar. *I, II; ( $\frac{3}{4}$  unit)*. Not given, 1918-19.]

[102b. **Advanced Electrochemistry.**—Modern theories of solution; thermodynamics; transformation of chemical and electrical energy. *Three times a week. I; ( $\frac{3}{4}$  unit)*. Not given, 1918-19.]

*Prerequisite:* Chemistry 102.]

[102c. **Advanced Problems in Physical and Electrochemistry.**—Work in the laboratory or library with conferences. *I; ( $\frac{1}{2}$  to 1 unit)*. Not given, 1918-19.]

*Prerequisite:* Chemistry 31, 33, 102 or 102a.]

[102e. **Special Topic in Physical Chemistry.**—Subject for 1918-19: The theory of Relativity. Tolman: *Statistical Mechanics*. *Once a week; I; ( $\frac{1}{2}$  unit)*. Not given, 1918-19.]

[102f. **The Chemistry and Physics of Colloids.**—The classification of disperse system; absorption; ultramicroscopy. Electrical, chemical, optical, and catalytic properties of colloids. Seminar; laboratory. *Twice a week; I; ( $\frac{3}{4}$  unit)*. Not given, 1918-19; alternates with 102b.]

*Prerequisite:* Chemistry 31, 33, and 35 or 102b.]

103. **Advanced Inorganic Chemistry.**—Descriptive inorganic chemistry; the rarer elements; the periodic system. Lectures, with or without laboratory. *Two to five times a week; I, II; ( $\frac{1}{2}$  to  $1\frac{1}{4}$  units)* [W103; 1Q, 2Q, 3Q;  $\frac{1}{2}$  to  $1\frac{1}{4}$  units].

Assistant Professor HOPKINS

103a. **Advanced Analytical Chemistry.**—Special topics. Lectures, with or without laboratory. *One to five times a week; II; ( $\frac{1}{2}$  to  $1\frac{1}{4}$  units)* [2Q;  $\frac{1}{2}$  to  $1\frac{1}{4}$  units].

Assistant Professor SMITH

*Prerequisite:* Chemistry 5b, 9a, 9b, 14a-14b, 31, 33.

103b. **Special Topics in Inorganic Chemistry.**—Subject for 1918-19: The Chemistry of the Higher Order Compounds. Werner: *Neuere Anschauungen auf dem Gebiete der Anorganischen Chemie*; assigned reading from later publications. Lectures; seminar. *I; ( $\frac{3}{4}$  unit)* [W103b; 1Q;  $\frac{3}{4}$  unit].

Assistant Professor SMITH

*Prerequisite:* Chemistry 9a, 9b, 14a-14b.

103c. **Special Topics in Inorganic Chemistry.**—Seminar: Rare earths. *I, II; ( $\frac{1}{4}$  unit)* [W103c; 1Q;  $\frac{1}{4}$  unit].

Assistant Professor HOPKINS

104. **Advanced Organic Chemistry.**—A systematic study of the more important theoretical considerations in organic chemistry. Geometric isomerism; optical isomerism; tautomerism; mechanisms of important reactions; etc. *I; ( $\frac{3}{4}$  unit)* [2Q;  $1$  quarter unit].

Assistant Professor ADAMS

104a. **Advanced Organic Chemistry.**—Special topics in organic chemistry. A selection will be made from the following: carbohydrates, proteins, ureides, alkaloids, terpenes, relationship between color and constitution, physiological properties and chemical constitution, trivalent carbon, bivalent carbon. General survey of heterocyclic compounds, etc. *II; ( $\frac{3}{4}$  unit)* [3Q;  $1$  quarter unit].

Assistant Professor ADAMS

**[104b. Advanced Quantitative Organic Chemistry.**—Proteins, alkaloids, glucosides, volatile oils, and other constituents of animal and vegetable tissues. Plant analysis. Toxicological analysis. The general methods, chemical and physical, of organic analysis. Lectures and seminar. May be accompanied by laboratory work on a selected group of compounds. *Twice a week; I, II; ( $\frac{3}{4}$  unit).* Not given, 1918-19.

Assistant Professor BEAL]

**104c. Organic Chemistry.**—Seminar.—A review of the current literature in organic chemistry. *Once every two weeks; I, II; ( $\frac{1}{4}$  unit)* [W104c; 1Q;  $\frac{1}{4}$  unit].

Assistant Professor KAMM

**[104d. Advanced Organic Chemistry.**—The benzene, naphthalene, and anthracene compounds; other important cyclic systems as the pyridines pyrrols, etc. *I; ( $\frac{3}{4}$  unit).* Not given, 1918-19.

Assistant Professor ADAMS]

**105. Advanced Physiological Chemistry.**—A more detailed study of the structure and distribution of the proteins. The chemistry of intermediary metabolism and of the glands of internal secretion. Lectures; demonstrations; assigned readings; discussions. *Twice a week; II; ( $\frac{3}{4}$  unit)* [3Q; 1 unit].

Assistant Professor LEWIS

**105a. Advanced Physiological Chemistry.**—The more difficult biochemical preparations; the use of analytical methods. Lecture and laboratory. *One to five times a week; I, II; ( $\frac{3}{4}$  unit)* [W105a; 1Q or 2Q; 1 unit].

Assistant Professor LEWIS

**105b-105c. Advanced Physiological Chemistry.**—Seminar. A consideration of some phases of the recent development of physiological chemistry. *Two hours a week; I, II; ( $\frac{1}{2}$  unit)* [W105b-c; 1Q, 2Q, 3Q;  $\frac{1}{2}$  unit].

Assistant Professor LEWIS

**[106. Animal Chemistry (Animal Nutrition).**—Recent advances in the chemistry of nutrition of the lower animals; the chemistry of the functional products; the flesh, fat, milk, and wool of the more common domesticated animals. Lectures; conferences; assigned reading; laboratory. *Five times a week; I, II; (1 to  $1\frac{1}{2}$  units).* Not given, 1918-19.

Professor GRINDLEY

*Prerequisite:* Two years' work in chemistry.]

**107. Special Problems in Technology of Fuels.**—*I; (1 unit)* [2Q, 3Q;  $\frac{1}{2}$  unit].

Professor PARR

*Prerequisite:* Chemistry 77.

**108. Advanced Metallography.**—Selected alloy systems; correlation of constitution and properties. *Twice a week; I; ( $\frac{3}{4}$  unit)* [3Q;  $\frac{3}{4}$  unit]. Associate Professor MCFARLAND

*Prerequisite:* Chemistry 7 and 78 or equivalent.

**109. Advanced Industrial Chemistry.**—Seminar. Some of the more important chemical industries; the development and chemical control of processes. *Twice a week; I, II; ( $\frac{3}{4}$  unit)* [2Q, 3Q;  $\frac{1}{2}$ - $\frac{3}{4}$  unit].

Associate Professor MCFARLAND

*Prerequisite:* Chemistry 6, 14a-14b, 31, or equivalent.

**110. Water Supplies.**—An advanced course in the chemistry of water and sewage. The sources of contamination of water supplies and the purification of water for potable or technical use. *One to five times a week; I, II; ( $\frac{1}{2}$  to  $1\frac{1}{4}$  units)* [W110; 1Q, 2Q, 3Q;  $\frac{1}{2}$  to  $1\frac{1}{4}$  units].

Acting Professor MONFORT

**111. Research.**—A thesis is usually required of students taking the Master's degree and is always required of students taking the degree of Doctor of Philosophy. (For a description of undergraduate work leading to a thesis, see Chemistry 11.) Laboratory fee, \$2.00 an hour. *I, II; ( $\frac{1}{4}$  to 4 units)* [W111; 1Q, 2Q, 3Q;  $\frac{1}{4}$  to 4 quarter units]. Work may be taken in the following subjects:

PHYSICAL AND ELECTROCHEMISTRY

Professor HARKINS

INORGANIC CHEMISTRY

Assistant Professor SMITH, Assistant Professor HOPKINS

ANALYTICAL CHEMISTRY

Assistant Professor SMITH

FOOD CHEMISTRY

Assistant Professor BEAL

ORGANIC CHEMISTRY Professor NOYES, Assistant Professor ADAMS, Assistant Professor KAMM

WATER CHEMISTRY

Acting Professor MONFORT

ANIMAL CHEMISTRY (Animal Nutrition)

Professor GRINDLEY

PHYSIOLOGICAL CHEMISTRY

Assistant Professor LEWIS

INDUSTRIAL CHEMISTRY

Professor PARR, Associate Professor McFARLAND

CERAMIC CHEMISTRY

Professor WASHBURN

## Summer Session

Assistant Professor LEWIS, Dr. BEAL (in charge), Dr. DEMING, Dr. CANN, Dr. KAMM, Dr. ANDEREGG, Dr. BRALEY, Mr. RINDFUSZ, Mr. HOWELL, Mr. VAN WINKLE, Miss SPARKS

NOTE.—All of the courses in chemistry in the Summer Session are equivalent to the courses of the same numbers given during the academic year.

**S 1. Elementary Chemistry.**—The non-metallic elements. Text: Noyes' *Text Book of Chemistry*. (5). Dr. DEMING, Dr. ANDEREGG

**S 1a. Inorganic Chemistry.**—For students who have had one year of high-school chemistry. This course may be taken at the same hours as Chemistry S 1, but only four hours of laboratory work are required. (3). Dr. DEMING, Dr. ANDEREGG

**S 1b. Inorganic Chemistry.**—For engineering students. This course may be taken at the same hours as Chemistry S 1, but only six hours of laboratory work are required. (4). Dr. DEMING

**S 2a. Inorganic Chemistry and Qualitative Analysis.**—Chemistry and qualitative analysis of the more common metals and inorganic compounds. Texts: Noyes' *Text Book of Chemistry*, Noyes and Smith's *Qualitative Analysis*. (5). Dr. CANN, Dr. ANDEREGG

*Prerequisite:* Chemistry 1 or 1a.

**S 3a. Inorganic Chemistry and Qualitative Analysis.**—For students in chemistry and chemical engineering. Texts: Noyes' *Text Book of Chemistry*, Noyes and Smith's *Qualitative Analysis*. (6). Dr. CANN, Dr. ANDEREGG

*Prerequisite:* Chemistry 1.

**S 5a. Elementary Quantitative Analysis.**—Gravimetric and volumetric methods; stoichiometrical relations, the fundamental laws of chemistry and their applications to quantitative analysis. Text: Talbot's *Quantitative Chemical Analysis*. (5). Dr. BEAL, Dr. BRALEY, Mr. VAN WINKLE

*Prerequisite:* Chemistry 2a or 3a.

**S 13a. Agricultural Analysis.**—Gravimetric and volumetric analysis; analysis of fertilizers and milk. Parallel with Chemistry 5a. Talbot's *Quantitative Chemical Analysis*. (For students in agriculture and home economics.) (5). Dr. BEAL, Dr. BRALEY, Mr. VAN WINKLE

*Prerequisite:* Chemistry 2a or 3a.

**S 17. Teacher's Course.**—Methods of teaching elementary chemistry. (1). Dr. DEMING

*Prerequisite:* One year's work in chemistry.

## Courses for Undergraduates and Graduates

**S 14a. Elementary Organic Chemistry.**—This course should be accompanied by laboratory work, S 14c. (3). Dr. KAMM, Mr. RINDFUSZ

*Prerequisite:* Chemistry S 2a or S 3a or equivalent courses.

**S 14b. Organic Chemistry (second course).**—Continuation of Chemistry S 14a, with emphasis on special chapters. Library assignments. Not given unless elected by more than three students. (3). Dr. KAMM, Mr. RINDFUSZ

*Prerequisite:* Chemistry S 14a and S 14c or equivalent.

**S 14c. Organic Chemistry (elementary laboratory).**—Typical laboratory methods; syntheses of some of the more important organic compounds. (2).

Mr. RINDFUSZ, Mr. HOWELL

*Prerequisite:* Registration in Chemistry S 14a or completion of a course equivalent to S 14a.

**S 14d. Organic Chemistry (advanced laboratory).**—Synthetical preparations in organic chemistry, together with several weeks of both qualitative and quantitative organic analysis. (2). Dr. KAMM, Mr. RINDFUSZ

*Prerequisite:* Registration in Chemistry S 14b or completion of a course equivalent to S 14b.

**S 15. Physiological Chemistry.**—Enzymes; carbohydrates; salivary digestion; gastric digestion; fats; pancreatic digestion; intestinal digestion, bile putrefaction products; feces; blood, milk; epithelial and connective tissues; muscular tissue; nervous tissue; urine. Qualitative and quantitative work on gastric juice, blood, urine, and milk; the clinical aspects of these topics treated thoroly for the prospective student of medicine. Lectures; demonstrations; conferences; practical work; assigned reading. Mathews' *Physiological Chemistry*, 2d Ed.; Hawk's *Practical Physiological Chemistry*, 5th Ed. (5).

Assistant Professor LEWIS

*Prerequisite:* Chemistry 5a or 13a, and 14a-b or 9 and 9c, or equivalent.

**S 21. Qualitative Organic Analysis.**—Systematic methods for the identification of pure organic compounds and mixtures. (2). Dr. KAMM, Mr. HOWELL

*Prerequisite:* Chemistry S 14b and S 14d or equivalent.

**S 25 (formerly S 5c). Food Analysis.**—Quantitative organic analysis; examination of food and drug products: alcohols, carbohydrates, fats and oils, animal and vegetable foods, nitrogenous bodies, preservatives, and colors. Sherman's *Organic Analysis* and Sherman's *Food Products*, "Bulletin 107, rev., U. S. Bureau of Chemistry." (5).

Dr. BEAL, Mr. VAN WINKLE

**S 26. Pharmaceutical Chemistry.**—The analytical chemistry of medicinal substances, with a discussion of the common types of pharmaceutical preparations. *United States Pharmacopoeia, Ninth Decennial Revision*. Not given unless elected by more than four students. (3). Dr. BEAL

*Prerequisite:* Chemistry 14a-14b.

**S 65. Technical Gas and Fuel Analysis.**—Examination of gases, gas mixtures, flue gases and fuels; determination of calorific values; calculation of efficiencies. Lecture, laboratory. White, *Gas and Fuel Analysis*. S. W. Parr, *Chemical Examination of Water, Fuel, Flue Gas and Lubricants*. (2). Dr. BRALEY

**S 92. Chemical Literature and Reference Work.**—Periods, leaders, journals; use of literature. Lectures, reports, reference work. (1). Miss SPARKS

**S 11 and S 111. Research.**—Advanced work for undergraduates (S11) and research work for graduates (S 111), in inorganic, organic, analytical, or physiological chemistry. Arrange hours and credit before registration.

Inorganic Chemistry

Dr. DEMING

Analytical Chemistry

Dr. BEAL

Physiological Chemistry

Assistant Professor LEWIS

Organic Chemistry

Dr. KAMM

## CIVIL ENGINEERING

FREDERICK HAYNES NEWELL, B.S., D.Eng., *Professor, Head of the Department*

IRA OSBORN BAKER, B.S., C.E., D.Eng., *Professor*

CHARLES ALTON ELLIS, A.B., *Professor, Structural Engineering*

JAMES ELMO SMITH, B.S., C.E., *Assistant Professor*

CARROLL CARSON WILEY, B.S., C.E., *Associate*

NEAL BRYANT GARVER,<sup>1</sup> B.S., C.E., *Associate*

GEORGE WELLINGTON PICKELS, Jr., B.C.E., C.E., *Associate*

WILLIAM HORACE RAYNER, B.S., C.E., *Associate*

EARL WESLEY CARRIER, B.S., *Instructor*

HARLAN HAMMOND EDWARDS, B.S., *Assistant in Laboratory*

## Courses for Undergraduates

**W 17. Elementary Surveying.**—A special course given in connection with the Students' Army Training Corps. [1Q; 2 quarter hours].

Professor NEWELL, Professor BAKER, Mr. RAYNER, and others

**27. Plane Surveying.**—The theory, use and adjustment of the compass, transit, and level; the computation of areas and volumes and the partitioning of land; map construction, the U. S. land survey methods, re-establishment of corners and boundaries, and interpretation of deeds; farm and city surveying; elements of topographic surveying. Problems with the tape, compass, transit, and level. Breed and Hosmer: *Elementary Surveying*, Vol. I. Davis: *Manual of Surveying*. I; (3) [W27, 27a; 1Q, 2Q; 3 quarter hours].

Mr. PICKELS, Mr. RAYNER

*Prerequisite:* General Engineering Drawing 1, 2, Mathematics 4.

**28. Higher Surveying.**—The theory and use of the transit and plane-table in making topographic surveys; methods; topographic drawing. Breed and Hosmer: *Higher Surveying*, Vol. II. Davis: *Manual of Surveying*. II; (3) [3Q; 3 quarter hours].

Mr. PICKELS, Mr. RAYNER

*Prerequisite:* Civil Engineering 27; Physics 1a, 3a and registration in Physics 1b, 3b.

**[31. Surveying.**—Compass, level, transit, and plane-table. Determination of distances by pacing, and with chain and tape, and of areas with compass and transit; profile leveling; plane-table. Davis *Manual of Surveying*. (For students in landscape architecture.) I; (3). Not given, 1918-19

*Prerequisite:* Mathematics 4; Architecture 31, 32.]

**32. Topographic Surveying.**—The stadia; topographic signs; contour construction; grading and drainage; advanced plane-table. Each student will prepare a large scale topographic map of a portion of the campus. Davis: *Manual of Surveying*. (For students in landscape architecture.) II; (3). Not given, 1918-19.

*Prerequisite:* Civil Engineering 31.]

**[35. Surveying.**—Compass, level, transit, and plane-table. Determination of distances with tape and by stadia, and of areas with compass and transit; differential and profile leveling; U. S. land survey methods; topographic surveying. Breed and Hosmer; *Principles and Practise of Surveying*, Vol. I.; and Davis: *Manual of Surveying*. (For mining engineering students and others who do not expect to take Civil Engineering 28.) I; (3). Not given, 1918-19.

*Prerequisite:* Physics 1b and 3b.]

**[38. Map Reading and Military Sketching.**—(For engineering students who have not taken surveying.) Use and construction of topographic maps; representation of relief; conventional signs; contour construction; profiles, visibility of lines and areas; construction

<sup>1</sup> Resigned.

of military maps in the field; road, outpost, and position sketches; sketch board, clinometer, range finder, aneroid barometer. *II*; (1). Not given, 1918-19.

*Prerequisite*: Sophomore standing in engineering.]

**51. Railroad Surveying.**—Economic location, construction, and maintenance of railways; curves, turnouts, and earth works; preliminary and location surveys. Each student makes a complete set of maps, profiles, and estimates. Pickels and Wiley: *Railroad Surveying*. *I*; (5) [W51; 1Q; 4 quarter hours]. Assistant Professor SMITH

*Prerequisite*: Civil Engineering 27, 28.

**52. Roads and Pavements.**—Earth, gravel, macadam, concrete, brick and bituminous roads; street pavements, and accessories; road-building machinery; effect of travel on road surfaces; dust prevention and street cleaning. Baker: *Roads and Pavements*. *II*; (3). [W52; 1Q; 2 quarter hours]. Mr. WILEY

*Prerequisite*: Mathematics 4; General Engineering Drawing 1, 2; Civil Engineering 27, 28, 51.

**[53. Railroad Surveying.**—First eleven weeks of course 51, for juniors in municipal and sanitary engineering. *I*; (3). Not given, 1918-19.

*Prerequisite*: Civil Engineering 27, 28.]

**54. Orientation for Heavy Artillery.**—An introductory course in methods of orientation for heavy artillery, including elements of topography; cartography of French maps; the use, care, and adjustment of the tape, transit, and plane-table; intersection and resection problems; the planchette de tir; orientation for railway artillery. This course was given at the request of the United States Coast Artillery Corps, and the text-book employed was that used in the Coast Artillery Officers' Training School. *I*; (3) [W54; 1Q; 3 quarter hours]. Mr. RAYNER

*Prerequisite*: Mathematics 2, 4, and 6, with junior standing in the University.

**[55. Roads and Pavements.**—(For students in landscape gardening.) Blanchard: *Elements of Highway Engineering*. *I*; (2). Not given, 1918-19.]

**[57. Stream Flow.**—Hydraulics of rivers and smaller streams; instruments and methods of obtaining climatological data and for measuring stream flow; current meter, float, weir, and various modules; solution of problems from field data measurement of drainage areas and estimation of discharge. Hoyt & Grover: *River Discharge*. *I*; (3). Not given, 1918-19.

*Prerequisite*: Civil Engineering 28.]

**58. Graphic Statics.**—Determination of stresses in roof trusses and in three-hinged arches. Malcolm: *Elements of Graphic Statics*. (For students in mining engineering.) *II*; (2) [3Q; 3 quarter hours]. Professor ELLIS

*Prerequisite*: Theoretical and Applied Mechanics 20, 25.

**59. Drainage Engineering.**—The present status and importance of the drainage problem; the effect of drainage on the public health; the economics of drainage; surveys and maps of drainage areas; reports on drainage projects; rainfall and run-off; the design, construction, maintenance, and cost of drainage systems; drainage by pumping; vertical drainage; methods of levying assessments for drainage benefits; the promotion of drainage projects; flood protection; channel improvement; the design, construction, and maintenance of levees; the bridging of drainage ditches. *I*; (2) [2Q; 2 quarter hours]. Mr. PICKELS

*Prerequisite*: Civil Engineering 27, 28, and 57.

**60. Structural Stresses.**—The determination of stresses in roofs, bridges, and steel-skeleton buildings, by algebraic and graphic processes. *II*; (4) [2Q; 6 quarter hours].

Professor ELLIS, Mr. CARRIER

*Prerequisite*: Mathematics 2, 4, 6; Theoretical and Applied Mechanics 20, 21, 29, 10; General Engineering Drawing 1, 2.

**62. Structural Details.**—Design of details for roofs, bridges, and steel-frame buildings; detail drawings and shop bills. Carnegie: *Pocket Companion*, last edition. II; (2) [3Q; 3 quarter hours]. Professor ELLIS, Mr. CARRIER

*Prerequisite:* Registration in Civil Engineering 60.

**70. Seminar.**—Reading and discussion of papers. Each student presents one major and two minor papers on assigned topics, and participates in the discussion of other papers. II; (1) [3Q; 3 quarter hours]. Professor BAKER

*Prerequisite:* Full junior standing in civil engineering.

**[76. Surveying.**—(For ceramic engineering students.) Plane and topographic surveying; adjustment and use of the transit, level, and plane-table; areas and volumes; map and profile construction; land surveying; contours; differential and profile leveling. Davis: *Manual of Surveying*. II; (2). Not given, 1918-19.

*Prerequisite:* Mathematics 4; General Engineering Drawing 1, 2; Physics 1a-1b, 3a-3b.]

**77. Masonry Construction.**—Baker: *Masonry Construction*. I; (4) [2Q; 4 quarter hours]. Professor BAKER

*Prerequisite:* Theoretical and Applied Mechanics 20, 21, 29, 10; Civil Engineering 60.

**79. Cement Laboratory Practise.**—Standard tests for hydraulic cement. I; (1) [W79; 1Q; 1 quarter hour]. Mr. WILEY

*Prerequisite:* Theoretical and Applied Mechanics 20, 21, 29, 10; Civil Engineering 60.

**80. Engineering Contracts and Specifications.**—Engineering relations, the law of contracts; general and technical clauses used in engineering specifications. Engineering ethics. The relation of the engineer to industrial, financial, and governmental problems. Mead: *Contracts, Specifications and Engineering Relations*. II; (2) [3Q; 4 quarter hours].

Professor NEWELL, Professor BAKER

*Prerequisite:* Full senior standing in the College of Engineering.

**81. Theory of Reinforced Concrete.**—Reinforced concrete beams, columns, and slabs. Hool: *Reinforced Concrete Construction*. I; (2) [2Q; 3 quarter hours]. Professor ELLIS

*Prerequisite:* Full senior standing in engineering.

**82. Reinforced Concrete Design.**—Plain and reinforced structures. Hool: *Reinforced Concrete Construction*, Vol. III. II; (4) [2Q; 4 quarter hours]. Assistant Professor SMITH

*Prerequisite:* Civil Engineering 81.

**[83. Bridge Design.**—Stresses and sections of a plate girder and a truss span; stress sheet, general design drawings, and estimate of weights. Johnson, Bryan, and Turneure: *Modern Framed Structures*, Part III. (For railway civil engineers, and civil engineers taking the general civil engineering option.) I; (3). Not given, 1918-19.

*Prerequisite:* Civil Engineering 60, 62.]

**[84. Engineering Functions.**—Relation of the engineer to his employer, private, corporate, or public; responsibility of the engineer as inspector, designer, supervisor of labor, agent or arbitrator; functions in valuation proceedings, in investigations, etc. II; (2). Not given, 1918-19.

*Prerequisite:* Full junior standing.]

**85. Steel Bridge Design.**—An expansion of course 83. Johnson, Bryan, and Turneure: *Modern Framed Structures*, Part III. (For civil engineers taking the structural engineering option.) I; (5) [W85; 1Q; 4 quarter hours]. Professor ELLIS

*Prerequisite:* Civil Engineering 60, 62.

**[86. Public Service Engineering.**—The engineer in public employment; organization of work under city, county, state, and federal administration; public improvements; methods of financing; preparing plans and considering the public welfare, including bridges, parks, recreation grounds, city planning, etc. II; (3). Not given, 1918-19.

Assistant Professor SMITH

*Prerequisite:* Full junior standing.]



**87. Advanced Bridge Analysis.**—Continuous, draw, cantilever, suspension, and metal-arch bridges. *I; (2) [2Q; 2 quarter hours].* Professor ELLIS

*Prerequisite:* Civil Engineering 60, 62; and registration in Civil Engineering 83 or 85.

**89. Hydro-Economics.**—The occurrence of water in nature; its conservation, regulation, and use for power and in industries; irrigation, drainage, transportation, domestic supply; the legal title to the use of water. *I; (2) [2Q; 2 quarter hours].*

Professor NEWELL

*Prerequisite:* Senior standing.

**90. Hydro-Economics.**—(A continuation of course 89.) *II; (2) [3Q; 2 quarter hours].*

Professor NEWELL

*Prerequisite:* Civil Engineering 89.

**93. Road Construction.**—Design; preparation of plans, specifications, and estimates of cost; types and methods of construction. *I; (3) [2Q; 3 quarter hours].* Mr. WILEY

*Prerequisite:* Civil Engineering 52; Theoretical and Applied Mechanics 21, 29.

**94. Highway Administration.**—Road laws and administration in Europe and America; taxation and methods of financing road work; relation of highway improvement to social and economic welfare. *II; (3) [3Q; 3 quarter hours].* Mr. WILEY

*Prerequisite:* Senior standing in civil engineering.

**96. Road Laboratory.**—Examining and testing bituminous and non-bituminous road materials; interpretation of the results. *II; (2) [3Q; 2 quarter hours].*

Mr. WILEY, Mr. EDWARDS

*Prerequisite:* Civil Engineering 52, 79; registration in Chemistry 73.

**97-98. Thesis.**—A problem in investigation or design, subject to the approval of the head of the department. Only students of high standing are permitted to take a thesis. *I; (1): II; (2 or 3)<sup>1</sup>.*

*Prerequisite:* Full senior standing in civil engineering.

**99. Inspection Trip.**—*I; (no credit).*

*Prerequisite:* Senior standing.

### Courses for Graduates

Entrance on graduate work in civil engineering presupposes the full undergraduate course in that subject.

**101. Irrigation and Drainage.**—The survey, examination, construction, maintenance, and operation of works for irrigation and drainage of agricultural lands; water rights; and reconstruction problems. *Twice a week; I, II; (½ unit). Time to be arranged.*

Professor NEWELL

**103. Highway Construction.**—Machinery and methods of handling materials. Contractors' organization and official control. *Twice a week; I, II; (1 unit). Time to be arranged.*

Professor BAKER

**106. Reinforced Concrete Design.**—Elastic theory of arches. *Twice a week; I, II; (1 unit or more).*

Professor ELLIS

**107. Bridge Engineering.**—Deflections; the statically indeterminate frame; swing bridges and arches; special graphic methods; suspension bridges; secondary stresses; impact. *Two or three times a week; I, II; (1 unit or more). Time to be arranged.*

Professor ELLIS

**124. Steel Building Construction.**—Steel framing of fireproof office buildings, hotels, and industrial buildings; wind bracing; eccentrically loaded columns; analysis of special details; erection methods and costs. *Twice a week; I, II; (1 unit or more).*

Professor ELLIS

<sup>1</sup>In registering for a course with variable credit hours, a student must put down on his study-list, not the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-3, but 2, or 3, or 4, or 5.

## THE CLASSICS

HERBERT JEWETT BARTON, A.M., *Professor, Chairman*

CHARLES MELVILLE MOSS, Ph.D., *Professor, Emeritus*

WILLIAM ABBOTT OLDFATHER, Ph.D., *Professor*

ARTHUR STANLEY PEASE, Ph.D., *Professor*

HOWARD VERNON CANTER,<sup>1</sup> Ph.D., *Associate Professor*

JAMES CURTISS AUSTIN, A.B., *Assistant*

CHARLES N SMILEY, Ph.D., *Professor of Latin in Grinnell College (Summer Session)*

## GREEK

**Major:** 20 hours, excluding Greek 1a-1b, 17, 18, and 19.

**Minors:** 20 hours chosen from foreign languages (Latin being especially recommended), English literature, history, and philosophy.

## LATIN

**Major:** 20 hours, excluding Latin 1a, 1b, 6a, and 12.

**Minors:** 20 hours chosen from foreign languages (Greek being especially recommended), English literature, history, and philosophy.

## CLASSICS

**Major:** 20 hours in Greek and Latin, excluding Greek 1a-1b, 1c, 16, 17, 18, 19, and 20, and Latin 1a, 1b, 6a, 12, 13, and 19. At least six hours shall be carried in the secondary language and the remaining hours in the primary language.

**Minors:** 20 hours chosen from foreign languages, English literature, history, and philosophy.

## GREEK

## Courses for Undergraduates

The courses in translation naturally follow each other in the following sequence: 1a-1b, 3, 7 (5), 6 (8). Courses 1a-1b, 3, and 4 are intended for students who cannot present Greek for entrance to the University, but who desire to commence the study of the language. Course 16 is open to sophomores, juniors, and seniors; 20 is open to those who have completed one year in history or classics.

**1a-1b. Grammar and Reader.**—First semester; reading of simple prose. Second semester: Xenophon's *Anabasis*, Book I. I, II; (4) [W1a, 1b, 1c; 1Q, 2Q, 3Q; 4 quarter hours].  
Professor OLDFATHER

**3. Second Year Greek.**—Xenophon's *Anabasis*, Books II-IV; grammatical drill. I; (3) [W3; 1Q; 3 quarter hours].  
Mr. AUSTIN

*Prerequisite:* Greek 1a-1b.

**4. Second Year Greek.**—Homer, six Books of the *Iliad*. II; (3) [4b, 4c; 2Q, 3Q; 3 quarter hours].  
Mr. AUSTIN

*Prerequisite:* Greek 3.

**7. Greek Drama.**—Three plays from the great dramatists. II; (3) [7b, 7c; 2Q, 3Q; 3 quarter hours].  
Professor PEASE

*Prerequisite:* Greek 3 and 4.

**16. The Private and Public Life of the Greeks.**—Lectures illustrated by photographs and slides; prescribed readings. This course presupposes no knowledge of Greek and is open to all students except freshmen. I; (1) [3Q; 1 quarter hour].  
Professor PEASE

<sup>1</sup>On leave in National Service.

- 20. Greek History.**—(This course is described by the department of history as History 5.) *I*; (3) [W20; 1Q; 3 quarter hours]. Professor OLDFATHER  
*Prerequisite:* One course in history or the classics. Not open to freshmen.

### Courses for Graduates

- 104. Homer and the Homeric Question.**—Lectures and readings in alternate hours. *I, II*; (1 unit) [W104a, 104b, 104c; 1Q, 2Q, 3Q;  $\frac{2}{3}$  unit]. Professor OLDFATHER  
**110. Bibliography and Criticism.**—(Thesis course.)—*Once a week; I, II*; (1 unit) [W110a, 110b, 110c; 1Q, 2Q, 3Q;  $\frac{2}{3}$  unit]. Professors OLDFATHER, PEASE, and others

### LATIN

- 1a-1b. Ovid and Vergil.**—First semester: Selections from the *Amores*, *Heroides* and *Metamorphoses*. Second semester Selections from the *Aeneid*. *I, II*; (4) [1c; 3Q; 4 quarter hours]. Mr. AUSTIN

*Prerequisite:* Three entrance units in Latin.

- 2a-2b. Livy, Plautus, and Terence.**—First semester: Selections from Livy, the story of Hannibal. Second semester: The *Captivi* and *Rudens* of Plautus and the *Phormio* of Terence. *I, II*; (4) [W2a, 2b, 2c; 1Q, 2Q, 3Q; 4 quarter hours].

Professor BARTON and Professor OLDFATHER

*Prerequisite:* Four entrance units in Latin.

- 3. Sallust and Cicero.**—Selections from the *Jugurthine War*; *De Senectute*. *I*; (3) [W3a, 3b; 1Q, 2Q; 3 quarter hours]. Professor PEASE and Mr. AUSTIN

*Prerequisite:* Latin 2a-2b.

- 4. Horace and Catullus.**—Selections. *II*; (3) [4c; 3Q; 3 quarter hours]. Mr. AUSTIN

*Prerequisite:* Latin 2a-2b.

- 5a-5b. Latin Composition.**—Grammatical drill and practise in the simpler forms of expression. *I, II*; (1) [W5a, 5b, 5c; 1Q, 2Q, 3Q; 1 quarter hour]. Professor BARTON

*Prerequisite:* Latin 1a-1b or its equivalent.

### Roman Life and Literature in English

(Courses 12 and 13 presuppose no knowledge of Latin; open to all students except freshmen.)

- 12. Vergil and Horace in English Translations.**—The *Aeneid* and selections from Horace. *I*; (2) [W12; 1Q; 2 quarter hours]. Professor BARTON

- 13. Roman Life.**—The family, organization of society, education, marriage, dress, amusements, religion, every-day life, the house. Some attention may be given to the monuments. Lectures and assigned readings illustrated by photographs, slides, and the Classical Museum collections. *II*; (1) [2Q; 1 quarter hour]. Professor BARTON

- 19. Roman History.**—(This course is described by the department of history as History 6.) Not open to freshmen. *II*; (3) [19b-19c; 2Q, 3Q; 3 quarter hours].

Professor OLDFATHER

- 9. Teacher's Course.**—The purpose and methods of preparatory Latin instruction; the teacher's preparation. *II*; (2) [3Q; 3 quarter hours]. Professor BARTON

*Prerequisite:* Eighteen hours in Latin; a portion of this requirement may be waived in the case of those who have taught Latin.

- 10. Latin Composition.**—The leading principles; imitation of assigned models. *I*; (2) [10b-10c; 2Q, 3Q; 2 quarter hours]. Professor BARTON

*Prerequisite:* Twelve hours in Latin, including 5a-5b or its equivalent.

## Courses for Advanced Undergraduates and Graduates

7. **Horace and Juvenal.**—Selections from the *Satires* and *Epistles* of Horace; selected *Satires* of Juvenal. *I*; (3) [7b, 7c; 2Q, 3Q; 3 quarter hours]. Professor PEASE

*Prerequisite:* Twelve hours in Latin.

14. **Seneca.**—Selections from his letters. *I*; (3) [W14; 1Q; 3 quarter hours].

Professor BARTON

*Prerequisite:* Twelve hours in Latin.

## Courses for Graduates

Students desiring to take graduate work in Latin should have had at least three years of college Latin in addition to the Latin presented to meet entrance requirements.

103. **Cicero.**—*De Natura Deorum* and *De Divinatione*. *Twice a week*; *I*; (1 unit) [W103a-103b; 1Q, 2Q;  $\frac{2}{3}$  unit]. Professor PEASE

104. **Latin Paleography.**—*Twice a week*. *I*; [3Q;  $\frac{2}{3}$  unit]. Professor PEASE

106. **Terence.**—*Twice a week*. *II*; (1 unit) [106b-106c; 2Q, 3Q;  $\frac{2}{3}$  unit]. Professor OLDFATHER

107. **Latin Epigraphy.**—*Twice a week*. *II*; (1 unit) [W107; 1Q;  $\frac{2}{3}$  unit]. Professor PEASE

108. **Tacitus.**—*The Histories*. *Twice a week*. (1 unit) [W108a-108b; 1Q, 2Q;  $\frac{2}{3}$  unit]. Professor BARTON

109. **Vergil.**—*Twice a week*. *II*; (1 unit) [109b-109c; 2Q, 3Q;  $\frac{2}{3}$  unit].

110. **Bibliography and Criticism.**—(Thesis course.) *Once a week*. *I, II*; (1 unit) [W110a, 110b, 110c; 1Q, 2Q, 3Q;  $\frac{2}{3}$  unit]. (Same as Greek 110.)

Professor OLDFATHER, Professor PEASE, and others

## Summer Session Courses

S 1. **High-School Latin.**—Representative readings from the second, third, and fourth years, with discussions of material as reflecting Roman public and private life, political and religious ideals. Attention will be given to the most effective ways of organizing and presenting the materials of Latin instruction in secondary schools. Students should provide themselves in advance with texts of Caesar, Cicero, and Vergil. (2 $\frac{1}{2}$ ).

Professor BARTON

S 2. **Pliny.**—Selected letters, an insight into the literary and social conditions of the Empire. (1 $\frac{1}{2}$ ).

Professor SMILEY

For students with two or three years of high-school Latin.

S 3. **Roman History.**—The period covered will extend from the beginning to the fall of the Republic. (1 $\frac{1}{2}$ ).

Professor SMILEY

S 4. **Teacher's Course.**—Special attention to problems and methods of instruction in Latin in the secondary schools; books and equipment. The slides and photographs of the classical department and the Classical Museum will be at the disposal of the class. (1 $\frac{1}{2}$ ).

Professor BARTON

## Course for Graduates

S 101. **Roman Epigram.**—Catullus and Martial will form the center of the work; lectures and discussions on the origin and development of the epigram as a department of literature, its technic and chief representatives on Roman soil. ( $\frac{1}{2}$  unit).

Professor SMILEY

## COMMERCIAL LAW

(SEE BUSINESS ORGANIZATION AND OPERATION.)

## COMPARATIVE PHILOLOGY

LEONARD BLOOMFIELD, Ph.D., *Assistant Professor of Comparative Philology and German*

## Courses for Advanced Undergraduates and Graduates

1. **Introduction to the Study of Language.**—Phonetics; the development of forms of speech; dialects and the spread of languages; the study and teaching of languages. I; (3) [2Q; 3 quarter hours]. Assistant Professor BLOOMFIELD

*Prerequisite:* The consent of the instructor.

- [3. **Elementary Sanskrit.**—Reading and grammar. Not given, 1918-19. Assistant Professor BLOOMFIELD]

- [4. **Elementary Sanskrit.**—(Continuation of Comparative Philology 3.) Not given, 1918-19. Assistant Professor BLOOMFIELD]

## Course for Graduates

2. **Comparative Philology of the Indo-European Languages.**—Greek, Latin, and the Germanic languages, including English. II; (2) [3Q; 3 times a week.]

Assistant Professor BLOOMFIELD

*Prerequisite:* The consent of the instructor.

## DAIRY HUSBANDRY

HARRY ALEXIS HARDING, Ph.D., *Professor, Dairy Bacteriology*  
 WILBER JOHN FRASER, M.S., *Professor, Dairy Farming*  
 NELSON WILLIAM HEPBURN, Ph.D., *Associate Professor, Dairy Manufactures*  
 MARTIN JOHN PRUCHA, Ph.D., *Associate Professor, Dairy Bacteriology*  
 WALTER LEE GAINES, Ph.D., *Associate Professor, Milk Production*  
 HARRISON AUGUST RUEHE, M.S., *Assistant Professor, Dairy Manufactures*  
 OLIVER RALPH OVERMAN, Ph.D., *Associate, Dairy Chemistry*  
 WILLIAM WODIN YAPP, M.S., *Associate, Dairy Husbandry*  
 LEIGHTON J TRUE, B.S., *Instructor, Dairy Manufactures*  
 CHRIS SIMEON RHODE, B.S., *Instructor, Dairy Husbandry*  
 MASON HERBERT CAMPBELL, M.S., *Assistant, Dairy Husbandry*

## Courses for Undergraduates

A set of courses designed to meet the needs of those especially interested in dairy manufactures is now being arranged. Students looking toward specialization in dairy manufactures are advised to consult the dairy department before registration.

1. **Testing Milk and Milk Products.**—Qualitative study of the components of milk; Babcock test; tests for acidity, purity, adulteration, and preservatives; the lactometer; testing of butter, cream, evaporated milk, and cheese; food value of dairy products. Lectures; recitations; problems; laboratory. I or II; (3) [3Q; 5 quarter hours].

Mr. OVERMAN

- [2. **Dairy Cattle.**—Selection, feeding, and management; dairy type and its relation to production; herd improvement; feeding considerations for production, for development; history, characteristics, and adaptability of breeds; milking machines; barn arrangements; herd management. (Students having credit in Dairy Husbandry 16 should register for laboratory work only, for which they will receive two hours' credit. All others must register for both lectures and laboratory.) Lectures; recitations; laboratory. I; (5). Not given, 1918-19. Associate Professor GAINES, Mr. YAPP

*Prerequisite:* Animal Husbandry 5, 8, and 21, or their equivalent.]

**W2. Dairy Cattle.**—Selection, feeding, and management; dairy type and its relation to production; herd improvement through grading and selection; feeding for growth and economy of production; care and management of the dairy herd. Lectures; quiz; laboratory. [W2; 1Q, 2Q; 5 quarter hours]. Mr. YAPP

**3. Elements of Dairy Husbandry.**—The dairy herd; dairy sanitation; milk testing; milk; milk products. (Required of all freshmen in the general curriculum in agriculture.) Lectures; demonstrations. *I* or *II*; (1) [3Q; 1 quarter hour]. Mr. YAPP and others

**4. Ice Cream Making.**—Mixing and freezing of ice cream, sherberts, and other frozen products, and the physical principles involved; types of freezers; flavoring materials, fillers, and binders; ice cream standards; the theory and practise of artificial refrigeration, and its use in the ice cream plant. (This course is accompanied by one inspection trip, costing about \$15.) *I* or *II*; (3) [3Q; 3 quarter hours]. Assistant Professor RUEHE

*Prerequisite:* Dairy Husbandry 1 or 5.

**5. The Composition of Dairy Products.**—Qualitative and quantitative analysis; comparison of quantitative methods; composition and properties of milk proteins; composition, chemical and physical properties of milk fat; rapid commercial tests. Lectures; recitations; assigned reading; laboratory. *II*; (3) [3Q; 5 quarter hours]. Mr. OVERMAN

*Prerequisite:* Chemistry 13a.

**[5.<sup>1</sup> Germ Life and the Dairy.**—Designed primarily to acquaint students with the general relation of bacteriology to dairy problems. Lectures; assigned readings. *I*; (1). Not given, 1918-19. Professor HARDING]

**7. Creamery Butter Making and Factory Management.**—Types of creameries; raw product received; grading; pasteurization; use of commercial starters; ripening, churning, salting, and working butter; butter composition and scoring; explanation of various physical phenomena in making, packing, and storing of butter; creamery by-products; refrigeration; creamery location and plans; business management and accounting of various types of creameries. (This course is accompanied by one inspection trip, costing from \$15 to \$20.) Lectures; laboratory. *II*; (5) [3Q; 5 quarter hours].

Associate Professor HEPBURN, Assistant Professor RUEHE

*Prerequisite:* Dairy Husbandry.

**8. City Milk Supply.**—A study of the problems involved in the production, transportation, plant management, and distribution of milk for city supplies. Lectures; laboratory; assigned readings. *II*; (2). [2Q; 3 quarter hours].

NOTE.—It is suggested that course 10 be taken previous to this course.

Professor HARDING, Mr. TRUE

**10. General Dairy Bacteriology.**—A consideration of the relation of bacteria to market milk and milk products including milk beverages, butter, cheese, condensed milk, and ice cream. Lectures; laboratory; assigned readings. *I*; (4) [3Q; 4 quarter hours].

Professor HARDING

*Prerequisite:* Bacteriology 1 or 5.

**[11. Dairy Bacteriology.**—The bacteria of milk and its products; methods of introduction, effect, and methods of control. Lectures. *I*; (2). Not given, 1918-19.

Professor HARDING

*Prerequisite:* Bacteriology 1 or 5; two years of university work.]

**[12a-12b. Dairy Bacteriology.**—The bacteria in milk and its products. Laboratory. *I, II*; (4). Not given, 1918-19.

Professor HARDING

*Prerequisite:* Bacteriology 1 or 5; two years of university work.]

<sup>1</sup> Not open for credit to students who have taken Bacteriology 1 or 5.

**[13. General Course in Dairy Manufactures.**—Milk production, care, and distribution; handling cream on the farm; care and use of hand separator; a study of various makes of machines, making and marketing butter under farm conditions; soft cheese; Neufchatel; cream; pimento; cottage; manufactured milk drinks; ice cream making; plans and equipment for the farm dairy. (This course is offered especially for the student who has only a general interest in the subject of dairy manufactures. The subject will be treated chiefly from the farm point of view.) *I*; (3). Not given, 1918-19.

Associate Professor HEPBURN, Assistant Professor RUEHE, and others]

**14. Milk Condensing.**—Making various kinds of condensed milk; processing; milk powder; condensing plants and their equipment. (This course requires one inspection trip, costing from \$15 to \$20.) Lectures; laboratory. *II*; (2) [3Q; 2 quarter hours].

Assistant Professor RUEHE

*Prerequisite:* Dairy Husbandry 1, 5, or 15.

**W15. Manufacturing, Handling, and Testing of Dairy Products.**—The Babcock test; tests for purity and adulteration of milk; milk inspectors' methods; production, transportation, and handling of milk for direct consumption; manufactured dairy products including cream, butter, varieties of cheese, condensed milk, dried milk, ice cream, and by-products. [W15; 1Q; 3 quarter hours; 2Q, 3Q; 5 quarter hours].

Associate Professor HEPBURN, Mr. OVERMAN, and others

**17. Advanced Study of Dairy Breeds.**—Continuation of Dairy Husbandry W2. Pure bred dairy cattle; history, characteristics, judging, pedigrees, official tests, prominent individuals and families; feeding and management of pure bred herds; theories of heredity; physiology of lactation. Lectures; quiz; laboratory. *II*; (2) [3Q; 5 quarter hours].

Mr. YAPP

*Prerequisite:* Dairy Husbandry W2 or its equivalent.

**20. Economic Problems in Dairy Farming.**—The finances of the dairy farm; magnitude of the investment necessary; importance of wise saving, consuming, and investing; economic problems of country life; what successful dairy farming is and what it means to the individual and community; comparative dairying. *I*; (3) [W2O; 1Q, 4 quarter hours; 2Q; 3 quarter hours].

Professor FRASER

**21. Systems of Dairy Farming.**—The organization of a dairy farm; location and arrangement of buildings and lots; relation of the cow and the herd to profits; how to establish and perpetuate a dairy herd of the highest efficiency; economical crops and rations on a dairy farm; systems of cropping; markets; care and disposal of the product at the greatest profit; farm accounts, records, and inventories. (A three-day inspection trip is required in this course, the expense of which is about \$20.) *II*; (5) [3Q; 5 quarter hours].

Professor FRASER

*Prerequisite:* Dairy Husbandry 2.

**[22. Cheese Making.**—Practise in making the more common varieties of hard and soft cheese. Lectures; laboratory. *I*; (2). Not given, 1918-19. Assistant Professor RUEHE

*Prerequisite:* Dairy Husbandry 1.]

**23a-23b. Investigation and Thesis.**—*I, II*; (5-10).<sup>1</sup>

Professor HARDING, Professor FRASER, Associate Professor HEPBURN, and Associate Professor GAINES

### Courses for Graduates

**101. Economic Milk Production.**—Differences in the efficiency of dairy cows, the cause and effect of these differences and their relation to successful dairy farming. *Twice a week*; *I, II*; (1 unit). *Time to be arranged.*

Professor FRASER

<sup>1</sup>In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which *he* intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

**104. Scientific Readings.**—Reading and discussion of some German or French bacteriological text. Designed to broaden the outlook in bacteriology and to quicken the ability to read. (Recommended for first and second year students.) *Once a week. I, II; ( $\frac{1}{2}$  unit).* *Time to be arranged.* Professor HARDING, Associate Professor PRUCHA

**105. Bacteriological Literature.**—Assigned systematic readings designed to cover a portion of the entire field of dairy bacteriology. Each student will be required to prepare and deliver an acceptable course of lectures. (Recommended for second and third year students.) *Once a week, or once in two weeks; I, II; ( $\frac{1}{2}$  or 1 unit).* *Time to be arranged.* Professor HARDING

**106. Research on Assigned Problems.**—Open to graduate students whose development permits their undertaking problems of dairy bacteriology with only general supervision. A study of the literature of the selected problem followed by laboratory study and reports. *I, II; ( $\frac{1}{2}$  to 2 units).* *Time to be arranged.*

Professor HARDING, Associate Professor PRUCHA

**107. Dairy Chemistry.**—A survey of the literature; special investigation on assigned problems. *Once a week; I, II; (1 unit).* Dr. OVERMAN

### DRAWING, GENERAL ENGINEERING

HARVEY HERBERT JORDAN, B.S., *Assistant Professor*

FRANCIS MARION PORTER, M.S., *Associate*

WALTER ELWOOD FARNHAM, B.S., *Instructor*

RANDOLPH PHILIP HOELSCHER, B.S., *Instructor*

JAMES EARL ROBERTSON, B.S., *Instructor*

WILLIAM JOSEPH BINGEN, C.E., *Instructor*

RUSSELL A WATT, B.S., *Instructor*

LEO STARR BALDWIN, B.S., *Instructor*

SAMUEL OMANSKY, *Student Assistant*

**1. Elements of Drafting.**—Lettering; isometric oblique and perspective drawing, orthographic projection; machine sketching; working drawings; 12 plates from specifications and 6 plates from models, with tracings. Dimensioned sketches from parts of machines; tracings duplicated in blue-print. Time sketches. (More advanced work is given to students who have had high-school drawing.) Miller: *Mechanical Drafting. I or II; (4) [2Q, 1 quarter hour; 3Q, 4 quarter hours].* The department staff

**2. Descriptive Geometry.**—Point, line, and plane; surfaces; intersections and developments (for architects, perspective). Problems; recitations. Three drawing room plates, 2 hours each, 5 problems per plate, and 2 home plates, 5 problems each, a week. Miller: *Descriptive Geometry. I or II; (4) [W2, 1Q, 3 quarter hours; 2Q, 3 or 4 quarter hours; 3Q, 4 quarter hours].* The department staff

*Prerequisite:* Solid geometry, college algebra, plane trigonometry.

**21. Advanced Descriptive Geometry.**—Cylinder, cone, convolute, and warped surface; intersections of surfaces in pairs, and by planes; planes tangent; developable and approximately developable surfaces and doubly curved and complex surfaces of revolution. *II; (2) [3Q; 2 quarter hours].* Mr. PORTER

*Prerequisite:* General Engineering Drawing, 1, 2.

### ECONOMICS

(See also BUSINESS ORGANIZATION AND OPERATION, and TRANSPORTATION.)

DAVID KINLEY, Ph.D., LL.D., *Professor*

MAURICE HENRY ROBINSON, Ph.D., *Professor*

ERNEST LUDLOW BOGART,<sup>1</sup> Ph.D., *Professor*

<sup>1</sup>On leave of absence, 1918-19.



CHARLES MANFRED THOMPSON, Ph.D., *Associate Professor*  
 NATHAN AUSTIN WESTON, Ph.D., *Assistant Professor*  
 SIMON LITMAN, Dr. Jur. Pub. et Rer. Cam., *Assistant Professor*  
 MERLIN HAROLD HUNTER, Ph.D., *Instructor*  
 GORDON WATKINS, Ph.D., *Instructor*  
 WALTER WILSON JENNINGS, A.M., *Assistant*  
 ROGER WENDELL VALENTINE, A.B., *Assistant*  
 PEMBROKE HOLCOMB BROWN, A.M., *Assistant*

**Major:** For students in the College of Liberal Arts and Sciences twenty hours, made up of Economics 1 and any other courses in economics for which it is a prerequisite.

**Minor:** Twenty hours in any one or two of the following subjects: history, philosophy, political science, and sociology.

Economics 7, 22, and 26 are open to freshmen without previous requirement. Economics 27 is also open to freshmen, but requires credit in course 26 or an approved high-school course in commercial geography.

Economics 1 and 3 are the fundamental courses in economics. They are prerequisites for most of the advanced courses and students expecting to do advanced work in economics should take them both in their sophomore year.

Economics 2, tho open to all students who have had 30 hours of university work, is primarily for students in the Colleges of Agriculture and Engineering and in courses in home economics, chemistry, chemical engineering, and other sciences. It may not be used as a prerequisite for advanced courses in economics except as indicated.

### Courses for Undergraduates

1. **Principles of Economics.**—(See note preceding the description of courses in economics above.) *I*; (5) [W1; 1Q, 2Q, 3Q; 5 quarter hours].

Associate Professor THOMPSON, Assistant Professor WESTON, Dr. HUNTER, Dr. WATKINS, Mr. BROWN

*Prerequisite:* Thirty hours of university work.

[2. **Principles of Economics.**—(See note preceding the description of courses in economics above.) *II*; (3). Not given, 1918–19.

*Prerequisite:* Thirty hours of university work.]

3. **Money and Banking.**—(See note preceding the description of courses in economics above.) *II*; (3) [2Q, 3Q; 3 quarter hours].

Assistant Professor WESTON, Dr. HUNTER, Dr. WATKINS, Mr. BROWN

*Prerequisite:* Economics 1.

6e. **Principles of Economics.**—Elementary course on the general principles of economics. *Open only to junior and senior engineering students.* [2Q; 3 quarter hours].

Professor ROBINSON

[7. **English Economic History.**—*Open to freshmen and sophomores only.* *I*; (3). Not given, 1918–19.]

[16c. **Agricultural Economics.**—The application of the principles of economics to the problems of agriculture. *II*; (3). Not given, 1918–19.

*Prerequisite:* Economics 1 or 2.]

22. **The Economic History of the United States.**—*Open to freshmen only.* *II*; (3) [2Q, 3Q; 3 quarter hours].

Associate Professor THOMPSON, Dr. HUNTER, Mr. JENNINGS, Mr. LEWIS, Mr. BROWN, Mr. VALENTINE

[23. **Statistics.**—Sources of data; purposes; preparation of schedules; analysis of returns; averages and index numbers; frequency tables; graphic methods; limitations of statistics; current problems. *II*; (3). Not given, 1918–19.

*Prerequisite:* Economics 1.]

26. **Economic Resources.**—Environment influences affecting commercial and industrial development; products and industries of different countries, especially of the United States. *Open to freshmen and sophomores only.* *I*; (3) [W26; 1Q, 2Q; 3 quarter hours].

Assistant Professor LITMAN, Dr. HUNTER, Dr. WATKINS, Mr. JENNINGS, Mr. LEWIS, Mr. BROWN, Mr. VALENTINE

[27. **Modern Industries.**—Raw materials; geographical distribution and economic significance; leading industries; stages of production; distribution of commodities. *Open to freshmen and sophomores only.* *II*; (3). Not given, 1918–19.

*Prerequisite:* Economics 26, or an approved high-school course in commercial geography.]

[32. **Marketing Farm Produce.**—*II*; (2). Not given, 1918–19.

*Prerequisite:* Economics 1 or 2.]

[33. **Economics of Insurance.**—Historical development and economic aspects. *I*; (2). Not given, 1918–19.

*Prerequisite:* Economics 1 and 3.]

[34. **Property Insurance.**—Fire, marine, title, and credit insurance and corporate suretyship. *II*; (2). Not given, 1918–19.

*Prerequisite:* Economics 1 and 3.]

[35. **Corporations.**—Organization and financial management of corporations. *Open to junior and senior engineering students only.* *I*; (3). Not given, 1918–19.

*Prerequisite:* Economics 1 or 2.]

#### Courses for Advanced Undergraduates and Graduates

[4. **Financial History of the United States.**—*I*; (3). Not given, 1918–19.

*Prerequisite:* Economics 1 and 3; senior standing.]

5. **Public Finance.**—*I*; (3) [W5; 1Q; 5 quarter hours].

Dr. HUNTER

*Prerequisite:* Economics 1.

8. **The Money Market.**—*II*; (2) [3Q; 3 quarter hours].

Assistant Professor WESTON

*Prerequisite:* Economics 1 and 3, Business Organization and Operation 1, senior standing.]

[9. **Practical Banking.**—Banking practise in the United States. *I*; (2). Not given, 1918–19.

*Prerequisite:* Economics 1 and 3; Business Organization and Operation 1; senior standing.]

10. **Corporation Management and Finance.**—*II*; (3) [3Q; 5 quarter hours].

Professor ROBINSON

*Prerequisite:* Economics 1 and 3.

11. **Industrial Consolidation.**—The growth of monopoly. *I*; (3) [2Q; 3 quarter hours].

Professor ROBINSON

*Prerequisite:* Economics 10.

12a-12b. **Labor Problems.**—*I, II*; (3) [W12a; 1Q, 2Q, 3Q; 3 quarter hours].

Dr. WATKINS

*Prerequisite:* Senior standing, Economics 1, and three additional hours in economics for which Economics 1 is a prerequisite. *Or:* Senior standing and Economics 1 for students whose major is one of the social sciences.

[13. Economic Development of Europe Since the Industrial Revolution.—II; (3). Not given, 1918-19.

*Prerequisite:* Sixty hours of university work, including Economics 1 and 3. Students who present a statement from the department of history showing that they are taking history as a major, may be admitted without Economics 3.]

[14. Agricultural Cooperation.—Open to junior and senior students of agriculture only. II; (2). Not given, 1918-19.

*Prerequisite:* Economics 1 or 2.]

[15. Rural Credit.—Open to junior and senior students of agriculture only. I; (2). Not given, 1918-19.

*Prerequisite:* Economics 1 or 2.]

[17. Economic History of Agriculture.—Land tenure: large, medium, and small farms; economic conditions and results of extensive and intensive culture; organization; relation to other industries and to the state. II; (2). Not given, 1918-19.

*Prerequisite:* Economics 1 or 2 and junior standing.]

[19. Economic History of the United States, 1820-1860.—I; (2). Not given, 1918-19.

*Prerequisite:* Open to graduates and seniors who have had Economics 1 and are taking a major in one of the social sciences.]

[20. Economic History of the United States Since 1860.—II; (2). Not given, 1918-19.

*Prerequisite:* Open to graduates and seniors who have had Economics 1 and are taking a major in one of the social sciences.]

[21. Socialism and Economic Reform.—Merged in Economics 21W for the year 1918-19.]

21Wa-21Wb. Economic Foundations of Society.—Owing to consolidation of courses necessitated by the conditions of war, Economics 21 and Economics 101 are combined for the current university year as Economics 21W. The course treats of theories of the economic organization of society; of theories of the organization, production, and distribution of wealth; and of proposed schemes of social reconstruction, whose aim or method or fundamental justification is a better economic order. The latter part of the course deals with specific proposals of socialism, "utopian," "scientific," and "opportunistic" and also with economic reorganization caused by the war and economic reconstruction afterwards. I, II; (2) [21Wa-21Wb; 1Q, 2Q, 3Q: 3 quarter hours]. Professor KINLEY

*Prerequisite:* Economics 1 and senior standing, or graduate standing.

28. Mechanism and Technic of Domestic Commerce.—Wholesale and retail organizations; markets, fairs, auctions, stock and produce exchanges; department, mail-order, and cooperative stores; commercial travelers; competition; advertising; credit. I; (3) [2Q; 3 quarter hours].

Assistant Professor LITMAN

*Prerequisite:* Economics 1 and 3.

[29. Foreign Commerce and Commercial Politics.—II; 2. Not given, 1918-19.

*Prerequisite:* Economics 28.]

31. Organization of Foreign Commerce.—Exporting and importing; institutions for furthering export trade; shipping; financing foreign business; the custom house. II; (3) [3Q; 3 quarter hours].

Assistant Professor LITMAN

*Prerequisite:* Economics 28.

[94. Public Finance Illustrated by the Financial History of the United States.—I; (3). Not given, 1918-19.

*Prerequisite:* Economics 1 and 3; senior standing.]

## Courses for Graduates

Students entering on graduate work in economics must have a thoro course in the principles of the science and must also have studied some special part of the field, such as public finance or money and banking.

[101. **Economic Theory.**—Merged in Economics 21W for the year 1918-19.]

104. **Foreign Commerce of the United States.**—*Twice a week; I, II; (1 unit).* *Time to be arranged.* Assistant Professor LITMAN

[105. **Public Finance.**—The history and theory of public revenue and expenditure. *Twice a week; I, II; (1 unit).* Not given, 1918-19.]

[107. **The Corporation in Economic Evolution.**—*Twice a week; I, II; (1 unit).* Not given, 1918-19.]

[109. **Theory of Industrial Consolidations.**—*Twice a week; I, II; (1 unit).* Not given, 1918-19.]

110. **Investments.**—Nature, character, and functions of investments. Classes, including direct investments and securities of various types. Methods of judging investments. State control. *Twice a week; I, II; (1 unit).* *Time to be arranged.*

Professor ROBINSON

118. **Seminar.**—*I, II.* *Time to be arranged.*

Members of staff

[120. **History of Economic Thought.**—*Twice a week; I, II; (1 unit).* Not given, 1918-19.]

[122. **Advanced Economic History of the United States.**—*Twice a week; I, II; (1 unit).* Not given, 1918-19.]

## Summer Session Courses

S 2. **Principles of Economics.**—(3).

Dr. STEWART

*Prerequisite:* One year of university work or (for teachers) the permission of the instructor.

S 3. **Money and Banking.**—(2½).

Dr. HUNTER

*Prerequisite:* A 5-hour course in the principles of economics or the permission of the instructor.

S 16c. **Agricultural Economics.**—The economic principles underlying the farming industry and the conditions of rural life. (2½).

Dr. STEWART

*Prerequisite:* Economics 1 or 2 or (for teachers) the permission of the instructor.

S 26. **Industrial Resources of the Nations at War.**—(2½).

Assistant Professor LITMAN

## Courses for Undergraduates and Graduates

S 4. **Experiences of the United States in War Finance.**—Principles of war finance. Methods used by the United States in war finance from the Revolutionary war to the present conflict. Problems arising from the methods employed with special emphasis on the present war. Readings, lectures, and discussions. (2½).

Dr. HUNTER

*Prerequisite:* Five hours in the principles of economics and the permission of the instructor.

S 29. **International Trade.**—The methods of controlling imports and of promoting sales in foreign markets with the aim of ascertaining what should be the after-war policy of the leading commercial nations. (2½).

Assistant Professor LITMAN

*Prerequisite:* A 5-hour course in the principles of economics and the permission of the instructor.

## EDUCATION

WERRETT WALLACE CHARTERS, Ph.D., *Professor, and Dean of the College of Education*

HORACE ADELBERT HOLLISTER, A.M., *Professor, High School Visitor*

BURDETTE ROSS BUCKINGHAM, Ph.D., *Professor, and Director of the Bureau of Educational Research*

DAVID SPENCE HILL, Ph.D., *Professor*

JOHN ALFORD STEVENSON, Ph.D., *Assistant Professor and Secretary*

JAMES MICHAEL O'GORMAN, A.M., *Lecturer*

ARLIE GLENN CAPPS, A.M., *Lecturer*

LEWIS WARD WILLIAMS, A.M., *Assistant, and Secretary of the Appointments Committee*

CHARLES ELMER HOLLEY, Ph.D., *Lecturer, and Assistant Director of the Bureau of Educational Research*

MRS. CHARLES HUGHES JOHNSTON, A.B., *Assistant*

DORA KEEN, A.M., *Assistant*

VELDA C BAMESBERGER, A.B., *Assistant in the Bureau of Educational Research*

J ORIN POWERS, A.M., *Assistant*

*Cooperating:*

BOYD HENRY BODE, Ph.D., *Professor of Philosophy*

FRED DUANE CRAWSHAW, B.S., M.E., *Professor of Industrial Education*

WALTER SCOTT MONROE, Ph.D., *Professor of Education, Director of Bureau of Educational Measurements, State Normal School, Emporia, Kansas (Summer Session)*

CARL COLVIN, B.S., *Associate in Agricultural Education*

FLORENCE HARRISON, A.M., *Associate in Home Economics*

ALVIS L RHOTON, A.M., *Professor, Georgetown College, Georgetown, Kentucky (Summer Session)*

**Major:** 20 hours made up from any of the courses offered by the department.

**Minor:** 20 hours made up from either (a) courses in any one or two university subjects represented in the high-school program; or (b) courses in any one or two of the following departments: psychology, sociology, philosophy, and political science; or (c) from one subject in (a) and one in (b).

The courses of the department fall into two general divisions: courses primarily for professional training and courses more specifically designed for general culture. The first division includes courses 1, 4, 6, 10, 15, 18, 20, 27, 41, 42, 43, 45, 101, 106, 112, 119, and 125. The second division, courses 2, 5, and 13.

## Introductory Courses

**1. Introduction to Education.**—The American public-school system; principles and aim of education; biological basis, heredity, and environment; instinct, habit, and habit-formation; memory, and the higher mental processes. (This course is required of all students who are given the official indorsement of the Appointments Committee for teaching positions in secondary schools.) *I, II; (4) [W1, 1Q, 6 quarter hours; 2Q, 3Q, 5 quarter hours.]* Mr. O'GORMAN

*Prerequisite:* Junior standing. Psychology 1 is desirable.

**2a-2b. History of Education.**—Second quarter: educational theory, institutions, and practise in Greek, Roman, and medieval civilizations. Third quarter: educational theory, institutions, and practise since the Italian Renaissance. State systems of education in the United States. *I, II; (3) (Either quarter may be taken separately) [2a, 2Q, 5 quarter hours; 2b, 3Q, 5 quarter hours.]* Mr. O'GORMAN

*Prerequisite:* Junior standing.

## Intermediate Courses

**10. The Technic of Teaching.**—Types of class-room exercises and preparation of teaching plans; the hygiene of instruction; class-room management; professional ethics. Observation of teaching in neighboring high schools. (This course, with Education 1, is required of all students who are given the official recommendation of the Appointments Committee for teaching positions in secondary schools.) *I*, (3); *II*, (3) [W10; 1Q, 2Q, 3Q; 5 quarter hours]. Mr. CAPPS

*Prerequisite:* Education 1.

**[16. Social Education.**—*I*; (3). Not given, 1918–19.]

**25. Educational Psychology.**—(Introductory course.) Instinct; habit and the acquisition of skill; perception and memory; conception, judgment, and reasoning. Lectures; demonstration. *I*; (3) [W1; 1Q; 5 quarter hours]. Professor HILL

*Prerequisite:* Psychology 1 or Education 1.

## Courses for Advanced Undergraduates and Graduates

**4. Problems of Educational Administration.**—School systems of typical cities and states; recent experiments in administration, discipline, and methods of teaching. *I*; (3) [3Q; 3 quarter hours]. Assistant Professor STEVENSON

*Prerequisite:* Education 1, 2.

**5. Comparative Education.**—Organization, administration, and basic national ideals of the school systems of the United States, Germany, England, Denmark, Norway, Sweden, Holland, Japan, and France, with reference to secondary education and to the training of teachers. *I*; (3) [W5; 1Q, 2Q; 3 quarter hours].

Assistant Professor STEVENSON

*Prerequisite:* Education 1.

**6. Principles of High-School Education.**—Evolution of high schools and of secondary education; proposed reorganization; high schools and the state systems; legal status; articulation with the elementary school, the college, the technical school, the community, and the home; the teaching staff; reconstruction of curriculums; "controls" of instruction; "student activities." (For those who expect to teach in secondary schools.) *I*; (3) [W6; 1Q, 2Q; 3 quarter hours]. Assistant Professor STEVENSON

*Prerequisite:* Education 1 or its equivalent.

**26. The Junior High School.**—A study of the history, organization, purposes, criticisms, subject matter, and methods of the junior high school. Curriculum organization and special methods in junior high schools; a study of the available literature and a few typical junior high schools. Lectures, readings, and investigations of special problems. *II*; (2) [2Q; 3 quarter hours]. Assistant Professor STEVENSON

*Prerequisite:* Education 1 or equivalent.

**27. High-School Curriculums.**—Historic curriculums for secondary education; modern curriculum-making; professional supervision; text-books, apparatus, and teaching devices; the psychology of high-school subjects; curriculums for typical communities. *II*; (3). Assistant Professor STEVENSON

*Prerequisite:* Education 1 or 6 (preferably both).

**[13-14. Educational Classics.**—*I*, *II*; (3). Not given, 1918–19.

*Prerequisite:* Education 1, 2.]

**18. Method in Educational Research.**—Statistical and other methods as applied to educational investigation. (This course is ordinarily required of all candidates for advanced degrees.) *I*; (4) [2Q; 4½ quarter hours]. Professor BUCKINGHAM.

*Prerequisite:* Education 1, or its equivalent.

[19. Readings in French and German Educational Literature.—*I*; (2). Not given, 1918–19.

*Prerequisite:* Education 1, and moderate facility in reading French and German.]

[20a. Theory of Supervision.—*I*; (3). Not given, 1918–19.

*Prerequisite:* Education 1, or its equivalent.]

41. Principles of Vocational Education.—An introduction to the field of secondary vocational education. The psychological and sociological bases of vocational education; problems, institutions, methods, contemporary movements, and legislation; applications of research in relating industry and education. Lectures, readings, discussions. *I*; (3) [W41; 1Q, 2Q; 3 quarter hours].

Professor HILL

*Prerequisite:* Education 1, or an equivalent satisfactory to the instructor.

42. Auxiliary or Special Education.—Educational and psychological studies related to exceptional individuals and groups—the gifted, the feeble-minded, the deaf, the blind, the delinquent, the crippled. Lectures, readings, discussions. *II*; (2) [2Q; 3 quarter hours].

Professor HILL

43. Mental Tests.—Laboratory drill in technic of mental tests, individual and group, including tests of sensory capacities, attention, memory, learning, suggestibility, inventiveness, systems of tests by diagnosis of mental ages, general intellectual status, mental retardation. *II*; (2) [2Q; 2 quarter hours].

Professor HILL

*Prerequisite:* Education 25 or an equivalent, and the consent of the instructor.

46. Organization and Administration of Industrial Education.—The organization of manual arts courses and their administration. A study of types of industrial schools and their courses; federal aid for industrial education; the organization of Smith-Hughes courses; the training of Smith-Hughes teachers. *II*; (3) [3Q; 4 quarter hours].

Professor CRAWSHAW

*Prerequisite:* Junior standing.

49. Rehabilitation as a War Problem.—A lecture course dealing with war neuroses, psychological and practical aspects of occupational therapy, functional reeducation, vocational education and placement, as concern returned disabled soldiers and sailors. Lectures and required readings. *I*; (1) [W1; 1Q; 1 quarter hour].

Professor HILL

*Prerequisite:* Junior standing.

50. Teaching.—In this course the student conducts the recitations of high-school students. *I, II*; (5) [W50; 1Q, 2Q, 3Q; 5 quarter hours]. Miss HARRISON, Mr. COLVIN

51. Advanced Educational Psychology.—An intensive study of Thorndike. Recitations, and discussions of Volumes I and II. *II*; (3) [2Q; 5 quarter hours].

Professor HILL

*Prerequisite:* Education 25 or Psychology 1, and consent of instructor.

### Courses for Graduates

101. Seminar in Educational Theory.—The philosophical bases of educational theory. *I*; (1 unit) [2Q; 1 quarter unit].

Professor BODE

110. Seminar in Methods of Teaching.—Individual investigation or problems of technic. *I, II*; (1 unit each semester) [W110; 1Q, 2Q, 3Q; 1 quarter unit].

Professor CHARTERS

[112. Principles of Education.—*II*; ( $\frac{1}{2}$  unit). Not given, 1918–19.]

118. Seminar in Educational Statistics.—Advanced statistical theory as applied in education. Scale derivation. Critical examination of existing tests and scales. Diagnosis. Remedial measures. Educational guidance. Record systems. Individual investigations and reports. *II*; (1 unit) [3Q; 1 quarter unit].

Professor BUCKINGHAM

[119. **The Elementary Curriculum.**—The functions and values of elementary-school studies; time allotments; practical exercises in the construction of curriculums. *II*; (1 unit). Not given, 1918–19.]

125. **Seminar in Educational Psychology.**—*II*; (1 unit) [W125; 1Q, 3Q; 1 quarter unit]. Professor HILL

**Departmental Conference.**—All graduate students majoring in education meet with the departmental staff the first and third Mondays of each month from 7 to 9 p. m. *I*, *II*; (no credit) [1Q, 2Q, 3Q].

### Summer Session Courses—Education and Psychology

(The content of these courses is, in general, the same as in the regular session.)

S 1a. **Principles of Education.**—(2½). Assistant Professor STEVENSON

S 1b. **The Educational System.**—(1½). Mr. WILLIAMS

S 2. **History of Modern Education.**—History of the evolution of educational theory and practise in modern times, beginning with the Renaissance.—(2½). Professor RHOTON

S 10. **The Technic of Teaching.**—(3). Mr. WILLIAMS

S 25. **Educational Psychology.**—(2). Professor HILL

S 90. **Problems of Rural and Agricultural Education.**—(See Agriculture and Agricultural Education S 90.)

S 4. **School Organization and Administration.**—(2). Assistant Professor STEVENSON

S 6. **The Principles of High-School Education.**—(2). Professor HOLLISTER

S 18. **Method in Educational Research.**—(2). Professor MONROE

S 20. **Supervision.**—(2). Professor HOLLISTER

S 21. **Units, Scales, and Standards.**—A course for school superintendents, supervisors, and teachers. Units, scales, and standards for measuring educational achievement or determining progress in arithmetic, spelling, handwriting, reading, composition drawing, history, and geography. Lectures, readings, and the investigation of some special problem in educational measurement. (2). Professor MONROE

S 26. **The Junior High School.**—(1). Assistant Professor STEVENSON

S 31. **Teacher Training Course.**—Study of curriculums, methods of teaching, and organization of high-school courses for the training of rural and village school teachers. Special consideration is given to the administration of teacher training classes in high schools. (2). Professor CHARTERS

S 41. **Introduction to Vocational Education.**—(2). Professor HILL

S 106. **Seminar in High-School Administration.**—(½). Professor HOLLISTER

S 118. **Seminar in Educational Research.**—(½ unit). Professor MONROE

S 119. **The Elementary School Curriculum.**—(½ unit). Professor CHARTERS

S 125. **Seminar in Educational Psychology.**—(½ unit). Professor HILL

### ELECTRICAL ENGINEERING

ELLERY BURTON PAINE, M.S., E.E., *Professor, Acting Head of the Department*

MORGAN BROOKS, Ph.B., M.E., *Professor*

EDWARD HARDENBERGH WALDO, A.B., M.S., M.E., *Assistant Professor*

ABNER RICHARD KNIGHT, M.E., *Associate*

ERNEST ALEXANDER REID, M.S., *Instructor*

PAUL HENRY BURKHART, B.S., *Instructor*



**4. Elementary Electrical Engineering.**—Electrical machinery; selection, installation, and operation; distribution of power; motor applications. *II*; (2) [3Q; 3 quarter hours].

Professor BROOKS

*Prerequisite:* Physics 1a-1b, 3a-3b; junior standing.

**8. Electric Currents and Apparatus.**—Direct and alternating current circuits and machines; storage batteries. (Especially for students in chemical engineering.) *I*; (3) [2Q; 3 quarter hours].

Professor BROOKS

*Prerequisite:* Physics 1a-1b, 3a-3b; registration or credit in Mathematics 7; registration in Electrical Engineering 68.

**11. Direct Current Apparatus.**—Generators, motors, distribution circuits; storage batteries. (For students in mechanical engineering.) *I*; (3) [W11; 1Q, 2Q; 3 quarter hours].

Professor BROOKS

*Prerequisite:* Physics 1a-1b, 3a-3b; Mathematics 8 or 9.

**12. Alternating Current Apparatus.**—Generators and motors, transformers, distribution systems. (For students in mechanical engineering.) *II*; (3) [3Q; 3 quarter hours].

Professor BROOKS

*Prerequisite:* Electrical Engineering 11, 61.

**25. Direct Current Apparatus.**—Laws of electric and magnetic circuits; construction and operation of direct current generators and motors. *I*; (4) [W25; 1Q, 2Q; 4 quarter hours].

Assistant Professor WALDO, Professor PAINE, Mr. KNIGHT

*Prerequisite:* Registration in Electrical Engineering 75 and Physics 4a; Mathematics 9.

**26. Alternating Currents.**—Mathematical and graphical treatment of periodic currents; phenomena in transmission lines and transformers. *II*; (4) [3Q; 4 quarter hours].

Mr. KNIGHT

*Prerequisite:* Electrical Engineering 25; Physics 4a; registration in Electrical Engineering 76.

**35. Alternating Current Apparatus.**—Transformers and generators. *I*; (4) [W35, 1Q, 5 quarter hours; 2Q, 4 quarter hours].

Professor PAINE

*Prerequisite:* Electrical Engineering 26, 76.

**36. Alternating Current Apparatus.**—Synchronous, induction, and commutator motors; rotary converters; distributed inductance and capacity; transient phenomena. *II*; (4) [3Q; 4 quarter hours].

Professor PAINE

*Prerequisite:* Electrical Engineering 35, 85.

**55. Electrical Design.**—Electromagnets and dynamos, direct and alternating; transformers. *I*; (2) [W55, 1Q, 2 quarter hours; 2Q, 3 quarter hours].

Assistant Professor WALDO

*Prerequisite:* Electrical Engineering 26; registration in Electrical Engineering 35.

**56. Electrical Design.**—Induction motors and converters; power plant design. Gebhardt: *Steam Power Plant Engineering*. *II*; (4) [3Q; 4 quarter hours].

Assistant Professor WALDO

*Prerequisite:* Electrical Engineering 35; Mechanical Engineering 2.

**61. Direct Current Laboratory.**—Circuits and Machines. (For students in mechanical engineering.) *I*; (1) [W61; 1Q, 2Q; 1 quarter hour].

Mr. BURKHART

*Prerequisite:* Registration in Electrical Engineering 11.

**62. Alternating Current Laboratory.**—Alternating current circuits and machines. (For students in mechanical engineering.) *II*; (1) [3Q; 1 quarter hour].

Mr. BURKHART

*Prerequisite:* Registration in Electrical Engineering 12.

**64. Electrical Engineering Laboratory.**—Testing of dynamos and motors. *II*; (1) [3Q; 1 quarter hour]. Mr. BURKHART

*Prerequisite:* Registration in Electrical Engineering 4.

**68. Electrical Engineering Laboratory.**—Direct and alternating current circuits and machines. *I*; (1) [2Q; 1 quarter hour]. Mr. BURKHART

*Prerequisite:* Registration in Electrical Engineering 8.

**71-72. Electrical Engineering Laboratory.**—The construction of special apparatus or other work approved by the department. (Elective for juniors and seniors.) *I, II*; (1-3)<sup>1</sup> [W71, 1Q, 2Q, 1-3<sup>1</sup> quarter hours; 72, 3Q, 1-3<sup>1</sup> quarter hours].

*Prerequisite:* Registration in Electrical Engineering 25.

**75. Electrical Engineering Laboratory.**—Direct current laboratory accompanying Electrical Engineering 25. *I*; (2) [W75, 1Q, 1 quarter hour; 2Q, 2 quarter hours]. Mr. REID

*Prerequisite:* Registration in Electrical Engineering 25.

**76. Electrical Engineering Laboratory.**—Flux and E. M. F. waves of alternators. Alternating current circuits, instruments. *II*; (2) [3Q; 2 quarter hours]. Mr. REID

*Prerequisite:* Electrical Engineering 25, 75; registration in Electrical Engineering 26.

**85. Electrical Engineering Laboratory.**—Advanced alternating current testing. *I*; (2) [W85, 1Q, 2Q; 2 quarter hours]. Mr. REID

*Prerequisite:* Electrical Engineering 76; registration in Electrical Engineering 35.

**86. Electrical Engineering Laboratory.**—Advanced alternating current testing. *II*; (2) [3Q; 2 quarter hours]. Mr. REID

*Prerequisite:* Electrical Engineering 85; registration in Electrical Engineering 36.

**87. Radio Communication.**—A mathematical and physical study of the principles of radio telegraphy and telephony; experimental work with radio equipment; code practise. This course is offered at the suggestion of the Chief Signal Officer of the Army, and is designed to prepare men for special technical service in the Signal Corps. *I*; (4) [W87, 1Q; 5 quarter hours]. Mr. KNIGHT

*Prerequisite:* Senior standing in Electrical Engineering.

**88. Radio Communication.**—Continuation of Electrical Engineering 87. *II*; (4) [2Q; 3 quarter hours]. Mr. KNIGHT

*Prerequisite:* Electrical Engineering 87.

**[90. Lighting.**—Electric lamps and other illuminants, and their effective use; interior wiring; methods of distribution. (For students in architecture.) *I* (half semester only); (1). Not given, 1918-19. Professor BROOKS

*Prerequisite:* Junior standing.]

**92. Lighting and Wiring.**—(First half of semester same as E. E. 90.) Distribution and fusing. Underwriters' rules; motors. (For students in architectural engineering.) *I*; (2) [2Q; 2 quarter hours]. Professor BROOKS

*Prerequisite:* Junior standing.

**93-96. Seminar.**—Electrical railroading; illumination; telegraphy; telephony; storage batteries; electric metallurgy. *I, II*; (1) [3Q; 1 quarter hour]. Professor PAINE

*Prerequisite:* Junior standing.

**98. Thesis.**—First semester: preliminary reading and investigation; second semester: completion. *I*, (no credit); *II*, (3).

**99. Inspection Trip.**—*I*, (no credit).

*Prerequisite:* Senior standing.

<sup>1</sup>In registering for a course with variable credit hours, a student must put down on his study-list not the possible hours, as shown here, but the number of hours for which he intends to take the course; e.g., not 2-5, but 2, or 3, or 4, or 5.

### Courses for Graduates

Entrance on graduate work in electrical engineering presupposes the full undergraduate course in that subject.

**101. Advanced Course in Alternating Currents.**—The theory of Transient Phenomena; polyphase circuits; measuring apparatus. *Twice a week; I, II; (1½ units).*

Professor PAINE

**103. Electrical Design.**—Plans for specified machine or apparatus; or for the arrangement of an electrical plant; or for the installation of such machinery or apparatus. *Twice a week; II; (1 unit).*

Assistant Professor WALDO

**105. Electrical Engineering Research.**—Investigation of electrical phenomena or tests of some electrical machine, or of a plant of such machines. *Twice a week; I, II; (1 to 3 units).*

Professor PAINE

### ENGINEERING

(See ARCHITECTURE, CERAMIC ENGINEERING, CIVIL ENGINEERING, DRAWING, ELECTRICAL ENGINEERING, MECHANICAL ENGINEERING, MECHANICS, MINING ENGINEERING, MUNICIPAL AND SANITARY ENGINEERING, PHYSICS, RAILWAY CIVIL ENGINEERING, RAILWAY ELECTRICAL ENGINEERING, and RAILWAY MECHANICAL ENGINEERING.)

### THE ENGLISH LANGUAGE AND LITERATURE

(Including CELTIC, RHETORIC, JOURNALISM, PUBLIC SPEAKING, and SCANDINAVIAN.)

STUART PRATT SHERMAN, Ph.D., *Professor, Chairman*

DANIEL KILHAM DODGE, Ph.D., *Professor*

THOMAS ARKLE CLARK, B.L., *Professor*

ERNEST BERNBAUM, Ph.D., *Professor*

GEORGE TOBIAS FLOM, Ph.D., *Associate Professor, Scandinavian*

HARRY GILBERT PAUL, Ph.D., *Associate Professor*

EDWARD CHAUNCEY BALDWIN, Ph.D., *Assistant Professor*

FRANKLIN WILLIAM SCOTT, Ph.D., *Assistant Professor, Secretary*

HARRIE STUART VEDDER JONES, Ph.D., *Assistant Professor*

JACOB ZEITLIN, Ph.D., *Assistant Professor*

HARRY FRANKLIN HARRINGTON, A.M., *Assistant Professor, Journalism*

CHARLES HENRY WOOLBERT, Ph.D., *Assistant Professor of Speech*

HOMER EDWARDS WOODBRIDGE, A.M., *Visiting Professor*

HERBERT LESOURD CREEK, Ph.D., *Associate*

CLARENCE VALENTINE BOYER, Ph.D., *Associate*

GERTRUDE SCHEPPERLE, Ph.D., *Associate*

HAROLD NEWCOMB HILLEBRAND, Ph.D., *Associate*

LEW R SARETT, A.B., LL.B., *Associate*

CLARISSA RINAKER, Ph.D., *Associate*

MARTHA JACKSON KYLE, A.M., *Instructor*

ROBERT CALVIN WHITFORD, Ph.D., *Instructor*

ALLENE GREGORY, Ph.D., *Instructor*

CHARLES ALBERT ROUSE, A.M., *Instructor*

ALTA GWINN SAUNDERS, A.M., *Instructor*

JOSEPH LOGAN RENTFRO, A.M., *Instructor*

ERNEST ERWIN LEISY, A.B., *Instructor*

ALAN DUGALD MCKILLOP, A.M., *Instructor*

LUCY LILIAN NOTESTEIN, A.M., *Instructor*

MIRIAM ALICE FRANC, Ph.D., *Instructor*

BEATRICE VIRGINIA COPLEY, A.M., *Assistant*  
 WILLIAM BRISTOW JONES, A.M., Litt.D., *Assistant*  
 MARJORIE LOUISE WALKER, A.M., *Assistant*  
 ELMO SCOTT WATSON, A.B., *Assistant*  
 LENA JOSEPHINE MYERS, A.M., *Assistant*  
 HELENE LOIS HINDS, A.M., *Assistant*  
 ELEANOR CRAIG, Ph.B., *Assistant*  
 FLORENCE MILLER HUMPHREYS, A.M., *Assistant*  
 MIRIAM KNOWLTON, A.B., *Assistant*  
 JESSIE MAY TOLAND, A.B., *Assistant*

*Cooperating:*

ARTHUR RAY WARNOCK, A.B., *Assistant Dean of Men*  
 FRED LEWIS PATTEE, A.M., Litt.D., *Professor of English in Pennsylvania State College*  
 (Summer Session)  
 ISAAC M COCHRAN, *Professor of Public Speaking in Carleton College (Summer Session)*

**Major:** 20 hours in English excluding Rhetoric 1-2 and English 10, and including at least 10 hours in English literature, at least 3 hours in composition, and at least 1 one-year course, or its equivalent, from the advanced group of courses.

**Minor:** 20 hours in either (a) one foreign language; or (b) in any two foreign languages; or (c) in one foreign language and philosophy; or (d) in one foreign language and history.

## A. ENGLISH LITERATURE AND LANGUAGE

### Elementary Courses

**1-2. Historical Survey of English Literature.**—First semester: Chaucer to Burns. Second semester: Wordsworth to Stevenson. (Credit is not given for either semester separately, nor for the course in addition to courses 10-11 or course 20.) *I, II*; (4) [W1-2; 1Q, 2Q, 3Q; 4 quarter hours].

Professor SHERMAN, Assistant Professor BALDWIN, Dr. CREEK, Dr. RINAKER

*Prerequisite:* One year of college work.

**NOTE.**—Registration for lecture and discussion sections meeting on the same day is not permitted.

**10-11. Introduction to Literature.**—First semester: The Forms of Poetry. Second semester: The Forms of Prose Literature. (This course is intended only for those who expect to include a considerable amount of literature, in English or in some other language, in their curriculum. Credit is not given for the course in addition to English 1-2 or 20 or for the first semester separately. One semester's work is credited toward a major in English.) *I, II*; (3) [W10-11; 1Q, 2Q, 3Q; 3 quarter hours].

Professor DODGE, Associate Professor PAUL, Assistant Professor JONES, Assistant Professor ZEITLIN, Miss KYLE

*Prerequisite:* The minimum entrance requirements in English.

**12-13. American Literature.**—(Credit is not given for either semester separately.) *I, II*; (2) [W12-13; 1Q, 2Q, 3Q; 2 quarter hours].

Associate Professor PAUL

*Prerequisite:* English 1-2 or 10-11 or two years of college work.

**20. Chief English Writers of the Nineteenth Century.**—The course aims to awaken an interest in literature by presenting the best thought of nineteenth century men of letters on religion, politics, economics, conduct, and social life. For those whose program admits of but one semester's work in English. Credit is not given for the course in addition to English 1-2 or 10-11. *I or II*; (4) [W20; 1Q; 4 quarter hours; 2Q, 3Q; 3 quarter hours].

Dr. BOYER, Dr. WHITFORD, Dr. GREGORY

*Prerequisite:* One year of college work.

23. **Introduction to Shakespeare.**—*Two Gentlemen of Verona, A Midsummer Night's Dream, Richard III, Romeo and Juliet, Henry V, Much Ado About Nothing, Twelfth Night, Othello, King Lear, Coriolanus, The Tempest.* I or II; (3) [W23; 1Q, 2Q; 3 quarter hours; or 3Q, 3 quarter hours]. Professor SHERMAN, Visiting Professor WOODBRIDGE  
*Prerequisite:* English 10-11 or English 1-2; open to upperclassmen.

### Intermediate Courses

*Prerequisite:* Eleven hours of English literature, or eight hours of English literature and eight hours of a foreign language.

- 21-22. **Literary Study of the Bible.**—Hebrew literature as an expression of the life of the race that produced it; the debt, both ethical and artistic, of modern life to ancient Hebrew thought. (Either semester may be taken separately.) I, II; (3) [W21-22; 1Q, 2Q, 3Q; 3 quarter hours]. Assistant Professor BALDWIN

24. **English Literature of the Victorian Period.**—II; (3) [2Q, 3Q; 3 quarter hours]. Miss KYLE

44. **Contemporary Poetry.**—A study of writers representing the principal movements in contemporary poetry, English and American. II; (2) [3Q; 3 quarter hours].

Dr. GREGORY

- [29. **English Literature from 1557 to 1688, Exclusive of the Drama.**—I; (3). Not given, 1918-19. Professor BALDWIN]

- [31. **English Literature from 1688 to 1789.**—II; (3). Not given, 1918-19.

Associate Professor PAUL]

33. **English Literature from 1789 to 1837.**—I; (3) [W33; 1Q; 3 quarter hours].

Assistant Professor ZEITLIN

43. **Browning.**—Intensive reading of the principal poems. I; (3) [W43; 1Q; 3 quarter hours] Miss KYLE

### Courses for Advanced Undergraduates and Graduates

*Prerequisite:* Sixteen hours of English literature; or junior or senior standing and the approval of the instructor concerned.

3. **The Poetry of Milton.**—Origin, forms, artistic and ethical values; Milton's place in English literary history. II; (3) [2Q, 3Q; 3 quarter hours].

Assistant Professor BALDWIN

- [4. **English Versification.**—History and technic; reading of representative poems; verse composition conferences. I; (2). Not given, 1918-19. Dr. CREEK]

5. **Shakespeare.**—Intensive study of six plays, with special emphasis on *Hamlet*. II; (3) [3Q; 3 quarter hours]. Professor DODGE

25. **Chaucer.**—I; (3) [2Q, 3Q; 3 quarter hours]. Assistant Professor JONES

- 8-9. **Old English (Anglo-Saxon).**—Grammar; short poems; *Beowulf*. (The first semester may be taken separately.) I, II; (3) [W8-9; 1Q, 2Q, 3Q; 3 quarter hours].

Professor DODGE

- [27. **English Literary Periodicals and the Genesis of the Periodical Essay in the 17th and 18th Centuries.**—I; (2). Not given, 1918-19. Assistant Professor SCOTT]

- [28. **The Magazine in America.**—II; (2). Not given, 1918-19.

Assistant Professor SCOTT]

41. **The Teaching of English Literature.**—I; (2) [2Q; 2 quarter hours].

Associate Professor PAUL

42. **The Teaching of English Composition.**—II; (2) [3Q; 2 quarter hours].

Associate Professor PAUL

[17. **The English Language.**—History, characteristics, and usage of modern English. *I*; (3). Not given, 1918–19. Assistant Professor ZEITLIN]

35. **The English Drama from the Beginning to 1600 [Exclusive of Shakespeare].**—The Religious Drama, Morality Plays, Sackville, Udall, Lyly, Peele, Greene, Kyd, Marlowe, etc. *I*; (3) [2Q; 3 quarter hours]. Professor DODGE

36. **The English Drama from 1600 to 1700 [Exclusive of Shakespeare].**—Jonson, Chapman, Dekker, Marston, Heywood, Middleton, Beaumont and Fletcher, Webster, Ford, Massinger, Dryden, Wycherley, Vanbrugh, Congreve, etc. *II*; (3) [3Q; 3 quarter hours]. Dr. HILLEBRAND

37. **Folk-Lore.**—Primitive customs and beliefs surviving in English poetry. Folk lyric and drama. Early satire and gnomic literature. *I*; (2) [W37; 1Q; 3 quarter hours]. Dr. SCHEPPERLE

38. **The Arthurian Tradition in England.**—The historical Arthur. Celtic tales. Old French Romances (in translation). The tradition in England from the early romances to Arnold, with special attention to Malory and Tennyson. *II*; (2) [2Q, 3Q; 3 quarter hours]. Dr. SCHEPPERLE

39. **Introduction to the Literature of the Middle Ages.**—Classical influences. Principal types: epic, romance, legend, lay, allegory, fabliau, lyric. Important poems, both English and continental, will be read in translation. *II*; (3) [2Q, 3Q; 3 quarter hours]. Dr. CREEK

45. **The Development of the Modern Drama.**—Dramatic tendencies in the nineteenth century, both in England and on the Continent; representative readings, and lectures from the standpoint of comparative literature. *I*; (3) [W45; 1Q, 2Q; 3 quarter hours]. Visiting Professor WOODBRIDGE

52. **The Great Novelists of the Nineteenth Century.**—Scott, Jane Austen, Dickens, Thackeray, Hawthorne, George Eliot, Meredith, Hardy, Stevenson, etc. *II*; (3) [2Q; 3 quarter hours]. Professor BERNBAUM

53. **Matthew Arnold.**—His prose and poetry with special reference to the main currents of nineteenth century thought. *II*; (3) [3Q; 3 quarter hours]. Professor SHERMAN

[54. **Introduction to Comparative Literature.**—The greatest Greek, Latin, Italian, Spanish, French, German, and English authors. The second semester may not be taken separately. *I, II*; (3). Not given, 1918–19.

Professors OLDFATHER, OLIVER, FITZ-GERALD, LESSING, BERNBAUM, Assistant Professor MOORE, and Dr. VAN HORNE]

NOTE.—This course is not counted toward an undergraduate major in English.

60a-60b. **Thesis.**—Special training in investigation for candidates for honors and for other seniors. *I, II*; (1). *Time to be arranged.* [W60; 1Q, 2Q, 3Q; 1 quarter hour.] Assistant Professor ZEITLIN and others

#### Courses for Graduates

101. **Research in Special Topics.**—Guidance in writing theses for advanced degrees. *I, II*; (1 or 2 units) [W101; 1Q, 2Q, 3Q; 1 to 2 quarter units].

Professor SHERMAN, Professor DODGE, Professor BERNBAUM, Associate Professor PAUL, Assistant Professor BALDWIN, Assistant Professor SCOTT, Assistant Professor JONES, Assistant Professor ZEITLIN, Visiting Professor WOODBRIDGE

[110. **Old English (Anglo-Saxon) Poetry.**—*Twice a week.* *I*; (1 unit). Not given, 1918–19.]

**114. The Development of the Essay.**—Types of the English essay. Continental influences and classical origins. *I, II; (1 unit)* [W114; 1Q, 2Q, 3Q; 1 quarter unit].

Assistant Professor ZEITLIN

**120. History of Literary Criticism.**—Critical standards from Aristotle to Sainte Beuve. The main types of criticism. *I, II; (1 unit)* [W120; 1Q, 2Q, 3Q; 1 quarter unit].

Visiting Professor WOODBRIDGE

**[126. Ballads.**—Studies in the relation of folk poetry to literature. *Twice a week. I; (1 unit)*. Not given, 1918–19.

Dr. SCHEPPERLE]

**[127. Metrical Romances.**—The beginnings of verse fiction. *Twice a week. II; (1 unit)*. Not given, 1918–19.

Dr. SCHEPPERLE]

**[128. Spenser and the Beginnings of the English Renaissance.**—The persistence of certain medieval traditions reinforced by the Revival of Classical Learning. Catholicism and Calvinism as sources of literary inspiration. *Twice a week. I, II; (1 unit)*. Not given, 1918–19.

Assistant Professor JONES]

**[129. English Literature from the Norman Conquest to Chaucer.**—Readings in Middle English authors exclusive of Chaucer, and lectures on the literature of the period. *Twice a week. I, II; (1 unit)*. Not given, 1918–19.

Assistant Professor JONES]

**[135. Problems in American Literature.**—*I, II; (1 unit)*. Not given, 1918–19.

Associate Professor PAUL]

**[137. Nineteenth Century Prose Writers.**—The relation of literature to social forces; the works of Mill, Carlyle, Newman, Ruskin, Arnold, and Pater. *Twice a week. I, II; (1 unit)*. Not given, 1918–19.

Professor SHERMAN]

**138. The Romantic Movement in England.**—*I, II; (1 unit)* [W138; 1Q, 2Q, 3Q; 1 quarter unit].

Professor SHERMAN

**140. Investigation in Modern English Literature.**—For second and third year graduate students who are preparing theses for the doctor's degree. May be taken in successive years. *Three hours, once a week; I, II; (1 to 3 units)* [W140; 1Q, 2Q, 3Q; 1 to 3 quarter units].

Professor BERNBAUM

**141. The History of Seventeenth Century English Literature to about the year 1675, beginning with Shakespeare's Sonnets.**—*I, II; (1 unit)*.

Professor BERNBAUM

**143. The Origins of the English Novel, and its History to the end of the Eighteenth Century.**—The first semester may not be taken separately. *I, II; (1 unit)*. [W143; 1Q, 2Q, 3Q; 1 quarter unit].

Professor BERNBAUM

**[144. Lincoln's Letters and Speeches.**—Development of style, relation to period, textural study, contemporary estimates. *II; (1 unit)*. Not given, 1918–19.

Professor DODGE]

#### Summer Session Courses

**S 1a. Survey of English Literature.**—Chaucer to Milton. (2). Professor DODGE

*Prerequisite:* One year of college work or the equivalent.

*Equivalent:* First half of English 1. (Together with S 1b this course covers the work of English 1. To be credited as equivalent to English 1, S 1b and S 1a should be taken simultaneously.)

**S 1b. Survey of English Literature.**—Bunyan to Burns. (2). Mr. CURL

*Prerequisite:* One year of college work or the equivalent.

*Equivalent:* Second half of English 1. (To be credited as equivalent to English 1, S 1b and S 1a should be taken simultaneously.)

**S 12. American Literature.**—Bryant, Irving, Cooper, Hawthorne, Emerson, Poe, Longfellow, Whittier, Lowell. Lectures, discussions, readings, and reports. (2).

Professor PATTEE

*Prerequisite:* One year of college work or the equivalent.

*Equivalent:* English 12.

**S 23. Shakespeare.**—*Two Gentlemen of Verona, Midsummer Night's Dream, Richard III, Romeo and Juliet, Henry V, Much Ado, Twelfth Night, As You Like It, Othello, Lear, Coriolanus, Winter's Tale, Tempest.* (3).

Dr. CREEK

*Prerequisite:* One year of college work or an equivalent.

*Equivalent:* English 23 (in part).

**S 4. History and Principles of English Versification.**—(2).

Dr. CREEK

*Prerequisite:* Sixteen hours of English, or junior standing and the consent of the instructor.

*Equivalent:* English 4.

**S 45. Contemporary European Drama.**—The "theatre of ideas," Teutonic naturalism, and the peasant drama of England and Ireland. Modern stage-craft. Ibsen, Strindberg, Hauptman, Schnitzler, Hofmannsthal, Zola, Becque, Brieux, Hervieu, Maeterlinck, Shaw, Galsworthy, Masfield, Barker, Synge, Fitch, Moody, and others. (3).

Professor DODGE

*Prerequisite:* Sixteen hours of English literature. Open to any upperclassman or graduate student with the consent of the instructor.

*Equivalent:* English 45.

**S 55. English Literature of the Nineteenth Century.**—The evolution of the England of today from the England of the eighteenth century. (2½).

Professor PATTEE

*Prerequisite:* Sixteen hours of English literature. Open to any upperclassman with the consent of the instructor.

**S 101. Research in Special Periods.**

Professor DODGE, Professor PATTEE, Dr. CREEK

## B. CELTIC

**1-2. Celtic Civilization and Literature in Translation.**—(Either semester may be taken separately. This course may not be counted toward a major in English.) *I, II;* (2) [W1-2; 1Q, 2Q, 3Q; 3 quarter hours].

Dr. SCHEPPERLE

## C. RHETORIC

**1-2. Rhetoric and Themes.**—Required for students in the Colleges of Liberal Arts and Sciences, Commerce, Engineering, and Agriculture. The course is not counted toward a major in English. *I, II;* (3) [W1-2; 1Q, 2Q, 3Q; 3 quarter hours].

Assistant Professor SCOTT in charge, Assistant Professor ZEITLIN, Visiting Professor WOODBRIDGE, Dr. CREEK, Dr. HILLEBRAND, Dr. RINAKER, Dr. GREGORY, Dr. WHITFORD, Dr. FRANC, Mr. ROUSE, Mr. RENTFRO, Mr. LEISY, Mr. MCKILLOP, Miss NOTESTEIN, Miss COPLEY, Mr. W. B. JONES, Miss WALKER, Miss MYERS, Miss HINDS, Miss CRAIG, Miss HUMPHREYS, Miss KNOWLTON, Miss TOLAND

*Prerequisite:* The minimum entrance requirements in English.

**War Issues 2.**—War issues with rhetoric and composition. [1Q; 4 quarter hours].

Professors GREENE, GARNER, SHERMAN, KINGSLEY, HOTTES, LARSON, BERNBAUM, OLMSTEAD; Assistant Professors BALDWIN, SCOTT, JONES, ZEITLIN; Visiting Professor WOODBRIDGE; Dr. CREEK, Dr. BOYER, Dr. RINAKER, Dr. WHITFORD, Mr. ROUSE, Mr. RENTFRO, Mr. LEISY, Mr. MCKILLOP



## Intermediate Courses

**3a. Exposition.**—Themes or topics of general interest; analyses of facts and ideas, literary reviews, and criticisms; informal essays. *I* or *II*; (3) [W3a; 1Q, 2Q, 3Q; 3 quarter hours]. Assistant Professor JONES, Miss KYLE

**3d. Description and Simple Narrative.**—*II*; (3) [2Q, 3Q; 3 quarter hours].

Miss KYLE

**6-7. Narrative Composition.**—Practise in short story writing. (Intended for those who have some aptitude for literary work.) *I*, *II*; (3) [W6-7; 1Q, 2Q, 3Q; 3 quarter hours]. Miss NOTESTEIN

*Prerequisite:* Two years of college work and the consent of the instructor.

**10. Business Writing.**—Correspondence; sales letters; practise in writing business reports and summaries. Lectures and discussions. (Not counted toward a major in English.) *I* or *II*; (2) [W10; 1Q or 2Q or 3Q; 3 quarter hours].

Mr. WARNOCK, Mrs. SAUNDERS

*Prerequisite:* Rhetoric 1-2.

**22. Summarizing and Briefing.**—Summarizing, briefing, and making reports; abstracts of correspondence on file; summarizing of commercial and economic data for the solution of business problems. (For students in the College of Commerce and Business Administration.) *II*; (2) [3Q; 3 quarter hours]. Mrs. SAUNDERS

*Prerequisite:* Rhetoric 10.

## Course for Advanced Undergraduates and Graduates

**17. Advanced Composition.**—The study of structure; criticism of current periodical literature; development of material for reports and magazine articles. (Open to a limited number of students, and only on recommendation.) *II*; (3) [2Q, 3Q; 3 quarter hours]. Dr. BOYER

*Prerequisite:* Two years of college work.

See also Journalism 10.

## Summer Session Courses

**S 1. Rhetoric and Themes.**—Principles of structure; grammar; punctuation; the sentence; reasoning processes. Four short themes a week and an occasional long theme. Oral and written exercises. (3). Miss COPLEY, Mr. WHITFORD

*Prerequisite:* Entrance credit in English.

*Equivalent:* Rhetoric 1.

**S 2. Rhetoric and Themes.**—Principles of argumentation, narration, and description. (3). Mr. WHITFORD

*Prerequisite:* Rhetoric 1.

*Equivalent:* Rhetoric 2.

**S 6. The Short Story.**—Study of the theory of the short story illustrated by recognized masterpieces and the best work of current magazines. Practical application of the theory by writing six stories of 2500-6000 words. (3). Mr. CURL

*Prerequisite:* Two years of college work and the consent of the instructor.

*Equivalent:* Rhetoric 6.

## D. JOURNALISM

**1. The Collecting and Writing of News.**—Drill in gathering news; exercises and assignments in writing the news-story; the various types of newspaper narratives; news

values considered with the aid of representative newspapers on file in the laboratory. *I*; (3) [W1; 1Q and 2Q or 2Q and 3Q; 3 quarter hours].

Assistant Professor HARRINGTON and Mr. WATSON

*Prerequisite:* Rhetoric 1-2.

**2. The Newspaper.**—(A continuation of Journalism 1.) Interviewing and newspaper correspondence; the organization and mechanical details of the newspaper. Syndicates, bureaus, press associations. Practise in writing for newspapers. *Six laboratory periods and three lectures a week.* *II*; (3) [3Q; 3 quarter hours].

Assistant Professor HARRINGTON

*Prerequisite:* Rhetoric 1-2; Journalism 1.

**3-4. Editorial Practise.**—Practical training in the reading of "copy," building of headlines, rewriting, making up, editorial supervision, proof reading, and type selection. *Five hours' work on the desk and one lecture a week.* *I, II*; (3) [W3-4; 1Q, 2Q, 3Q; 3 quarter hours].

Assistant Professor HARRINGTON and Mr. WATSON

*Prerequisite:* Journalism 1 and 2, or the consent of the instructor.

**5. Newspaper Problems and Policies.**—The relation of the newspaper to the public. Ethical aspects in the treatment of news, display, editorials, and advertising. *I*; (2).

Assistant Professor HARRINGTON

*Prerequisite:* One course in journalism.

**6. Making a Country Newspaper.**—Discussions intended primarily for juniors and seniors interested in the publication of country weeklies and small city dailies. A study of small town conditions; problems affecting rural newsgathering; country correspondence; circulation; advertising; business efficiency; print-shop equipment. Special investigations by members of the class. *II*; (2) [3Q; 3 quarter hours].

Assistant Professor HARRINGTON

*Prerequisite:* Junior or senior standing.

[8. **Agricultural News Writing.**—Class exercises; lectures; assignments in gathering and preparing material for agricultural and country papers. *I*; (3). Not given, 1918-19.]

**10. Editorials and Special Articles.**—*II*; (3) [3Q; 3 quarter hours].

Assistant Professor HARRINGTON

[21. **The Magazine in America.**—(See English 28.) Not given, 1918-19.]

**31. Law of the Press.**—*II*; (2) [3Q; 2 quarter hours].

Professor HALE

*Prerequisite:* Junior standing.

See also Business Organization and Operation 10 (Organization and Operation of Newspaper Publishing).

## E. PUBLIC SPEAKING

**1. Oral Expression.**—Theory and practise of oral expression for public and private address; elimination of mannerisms; cultivation of vocal purity and power; development of self-confidence and poise. *I, II*; (2) [W1; 1Q, 2Q; 2 quarter hours].

Assistant Professor WOOLBERT and Mr. SARETT

**NOTE.**—Credit is not given for this course unless it is followed by Public Speaking 2 or 10.

*Prerequisite:* Rhetoric 1-2.

**2. Extemporaneous Speaking.**—Theory and practise in coherent and effective organization of original materials, and in composition for practical public speaking; adaptation of speaking manner to subject matter; discussion of topics of current interest. *II*; (2) [3Q; 2 quarter hours].

Assistant Professor WOOLBERT and Mr. SARETT

*Prerequisite:* Public Speaking 1.

**3. Argumentation.**—Theory of argumentative discourse, for the cultivation of ability in meeting the contentions of an opponent, in analytical and instructive thinking; briefing, speech-writing, training in detection of fallacies in popular argument, criticism of the literature of debate; text and exercises. *I*; (3) [W3; 1Q, 2Q; 3 quarter hours].

Mr. SARETT

*Prerequisite:* Public Speaking 1 and 2.

**4. Debate.**—Application of the principles of argumentation to spoken debate, particularly political and intercollegiate discussions; team competition, adaptation of argument to various types of audience; popular debate; opportunities for practise debates before real audiences. *II*; (3) [3Q; 3 quarter hours].

Mr. SARETT

*Prerequisite:* Public Speaking 3.

**5. Persuasion.**—The winning of individuals and audiences by means of the written and spoken appeal; a study of the psychological sources of human action; primarily a study in matter, with secondary attention to appropriate platform manner and methods. *I*; (2) [2Q, 3Q; 2 quarter hours].

Assistant Professor WOOLBERT

*Prerequisite:* Public Speaking 1 and 2.

**[6. Forms of Public Address.**—Application of the principle of persuasion to particular types of address; practise in the composition and delivery of legislative, political, commemorative, dedicatory, inaugural, and academic address; the sales talk, plea for a client, the college oration, commencement address, lyceum lecture, and after-dinner talk. *II*; (2). Not given, 1918–19.

Assistant Professor WOOLBERT

*Prerequisite:* Public Speaking 1 and 2. Public Speaking 5 is recommended.]

**10. Interpretation and Dramatization of Literature.**—Oral interpretation of standard literature; interpretation and staging of plays. *II*; (2) [3Q; 2 quarter hours].

Assistant Professor WOOLBERT and Mr. SARETT

*Prerequisite:* Public Speaking 1.

### Summer Session Courses

**S 1. Oral Expression.**—Theory and practise of expression for public and private address. (2).

Professor COCHRAN

*Prerequisite:* Rhetoric 1 and 2 or equivalent.

*Equivalent:* Public Speaking 1.

(Credit is not given for this course unless it is followed by Public Speaking 2 or 10, or the equivalent.)

**S 10. Interpretation and Dramatization.**—Oral reading of types of literature; practical dramatic training; principles of stage action; staging and acting of plays. (2).

Professor COCHRAN

*Prerequisite:* Public Speaking 1 or equivalent.

*Equivalent:* Public Speaking 10.

**S 11. Argumentation and Debate.**—Theory and Practise of debating; team and individual competition; special attention to problems of coaching. (1).

Professor COCHRAN

*Prerequisite:* Public Speaking 1 and 2.

*Equivalent:* Public Speaking 3 (in part).

### F. SCANDINAVIAN

#### Undergraduate Courses Not Open to Freshmen

**1a-1b. Elementary Norwegian.**—Grammar; conversation; reading from Björnson, Lie, and Ibsen. *I, II*; (2) [W1; 1Q, 2Q; 3 quarter hours].

Associate Professor FLOM

**3a-3b. Intermediate Norwegian.**—First semester; Ibsen's *Brand* and *Et Dukkehjem*. Second Semester: Björnson's *En Fallit* and selections from recent writers. *I, II*; (2) [W3a-3b; 1Q, 2Q; 2 quarter hours]. Associate Professor FLOM

*Prerequisite:* Scandinavian 1 or the equivalent.

**4a-4b. Intermediate Swedish.**—Reading of selected works of present-day Swedish writers; lectures. *I, II*; (2) [W4; 1Q, 2Q, 3Q; 2 quarter hours].

Associate Professor FLOM

**6. Henrik Ibsen.**—Lectures; interpretation of three of the social dramas; Ibsen's technic. Archer's translation is used. *II*; (2) [2Q, 3Q; 2 quarter hours].

Associate Professor FLOM

*Prerequisite:* Junior standing.

**12. Norse Mythology.**—Primitive religion; the religious belief of the Norseman in pre-Christian times; interpretation of the principal myths; the beginnings of literature. *I*; (2) [W12; 1Q, 2Q; 2 quarter hours].

Associate Professor FLOM

**16. Lectures on Scandinavian Civilization from the Stone Age to 1000 A. D.**—Special emphasis upon relation to the civilization of the present Holland, Belgium, France, and the British Isles. *II*; (2) [3Q; 2 quarter hours].

Associate Professor FLOM

### Course for Graduates

Preparation for graduate work in the Scandinavian languages or literature must include a reading knowledge of one of the Scandinavian languages and systematic work in the undergraduate courses in Scandinavian or their equivalent. Any graduate student in language may, however, be admitted to the purely philological courses.

[101. **Old Norse.**—Introduction to the language as a member of the Germanic group. Reading of the *Prose Edda* in part. *I, II*; (1 unit). Not given 1918-19.

Associate Professor FLOM]

### ENTOMOLOGY

STEPHEN ALFRED FORBES, Ph.D., LL.D., *Professor*

ALEXANDER DYER MACGILLIVRAY, Ph.D., *Professor*

JUSTUS WATSON FOLSOM, D.Sc., *Assistant Professor*

ROBERT DOUGLAS GLASGOW, Ph.D., *Instructor*

LEWIS BRADFORD RIPLEY,<sup>1</sup> M.S., *Graduate Assistant*

**Major:** 20 hours from courses offered in the department, except Entomology 1a-1b, 4, 16, and 19.

**Minors:** 20 hours in botany, physiology, zoology, horticulture, and agronomy (see page 114).

Beginning courses open to freshmen and without prerequisites are 1a, 1b, 4, 16, and 19. Course 1a may best be followed by 2 or 4, and course 1b by 2 or 7. Students preparing for service as economic entomologists should take as many of the courses offered as possible, including especially 1a, 2, 4, 7, and 8. Those preparing for the teaching of zoology should take 1a or 1b, followed by 2 and 4, or 15 and 14.

### Courses for Undergraduates

**1a. Elementary Entomology.**—Structure, function, interrelation, origin, and development of insects, and the simpler generalizations of biological theory illustrated with insect material. Essentially an ecological course. Recommended as preliminary to Entomology 4, and for prospective teachers of zoology. Lectures, field, laboratory, and quiz work. (Students may not receive credit for both 1a and 1b.) *I* or *II*; (3) [3Q; 3 quarter hours].

Dr. GLASGOW

<sup>1</sup>Third quarter.

**1b. Elementary Entomology.**—Life, development, anatomy, and classification of insects; identification of some common species. Essentially a morphological course. Designed for those who wish to acquaint themselves with the most interesting phases of insect structure and life, especially as a preparation for teaching. (Students may not receive credit for both 1a and 1b.) *I*; (3) [W1b; 1Q, 2Q; 4 quarter hours].

Professor MACGILLIVRAY

**2. General Entomology.**—Morphological, physiological, and systematic entomology; collection and preservation of specimens; field observations; adaptive structures; classification and determination of insects; life histories. *I*; (5).

Assistant Professor FOLSOM, Dr. GLASGOW

*Prerequisite:* Entomology 1a or 1b.

**7a-7b. Systematic Entomology.**—The external anatomy of insects; terminology of the parts; identification of specimens representing as many as possible of the major groups. *I, II*; (5) [W7; 1Q, 2Q, 3Q; 5 quarter hours].

Professor MACGILLIVRAY

*Prerequisite:* Entomology 1a or 1b.

**4. Introduction to Economic Entomology.**—Lectures, field work; laboratory. (Primarily for students in the College of Agriculture; it may not be counted for satisfaction of group requirements in the College of Liberal Arts and Sciences.) *I* or *II*; (5) [2Q, 3Q; 5 quarter hours].

Assistant Professor FOLSOM, Dr. GLASGOW

**19. Garden and Household Insects.**—Life history, identification, and methods of control of the common insect pests of garden and ornamental plants, and of insects which may affect food, clothing, and health. (Primarily for students in landscape gardening and home economics.) *I* or *II*; (2) [3Q; 3 quarter hours].

Assistant Professor FOLSOM

*Prerequisite:* One year of university work.

**16. Apiculture.**—The essentials of bee-keeping. Practical operations; laboratory observations; collateral reading. *II*; (2) [3Q; 2 quarter hours].

Assistant Professor FOLSOM

**13. Insects and Disease.**—Insects and their allies which cause or transmit disease. Relation to public health. Recognition and control. (For pre-medical students, and for students interested in problems of state, municipal, and home sanitation. *I*; (2) [W13; 1Q, 2Q; 2 quarter hours].

Dr. GLASGOW

**14. Medical Entomology.**—Practical technic. Methods employed in the study of arthropods which cause or transmit disease, and of disease-producing organisms disseminated by arthropods. (For pre-medical students, and for students taking a major in entomology only; registration limited to ten students.) (Laboratory; assigned reading; demonstrations. *I*; (2) [2Q; 2 quarter hours].

Dr. GLASGOW

*Prerequisite:* Entomology 13 or Entomology W14. (Entomology 13 and Entomology 14 may be taken at the same time.)

**W14. Insect Problems in Army Sanitation.**—Insects and their allies which cause or transmit disease under army conditions. Recognition and control. Lectures; demonstrations; assigned reading. Designed to prepare students looking forward to military service for intelligent cooperation with army medical officers in the prevention or control of insect-caused or insect-borne diseases. [1Q; 3 quarter hours].

Dr. GLASGOW

**5. Introduction to Research.**—Library, language, manuscript, and advanced laboratory work on assigned topics. Required as a preparation for entomological thesis work. *I* or *II*; (3).

Professor MACGILLIVRAY, Assistant Professor FOLSOM

*Prerequisite:* Entomology 1, 2, 4, 8, or 1, 7, 9.

### Courses for Advanced Undergraduates and Graduates

**8a-8b. Advanced Economic Entomology.**—Assigned problems. Field, laboratory, insectary, library, and manuscript work, with practise in the operations of economic entomology. (Intended to prepare students for service as entomologists in experiment stations and other state and government positions. Agronomy 7 and Horticulture 1, 2, and 3 should also be taken as a part of this preparation.) *I, II*; (3) [W8; 1Q, 2Q, 3Q; 3 quarter hours]. Assistant Professor FOLSOM

*Prerequisite:* Entomology 4.

**10a-10b. Advanced Systematic Entomology.**—Laboratory course.

(1) Immature Insects.—Their anatomy and classification. *I, II*; (3) [W10(1); 1Q, 2Q, 3Q; 3 quarter hours].

(2) Coccidae.—The preparation, morphology, and identification of scale insects. *I, II*; (3) [W10(2); 1Q, 2Q, 3Q; 3 quarter hours].

(3) Insect Organogeny.—More important systems of organs of adult and immature insects. *I, II*; (3) [W10(3); 1Q, 2Q, 3Q; 3 quarter hours].

Professor MACGILLIVRAY

*Prerequisite:* Entomology 7a or 18a; senior standing.

**15. Introductory Course.**—Lectures on the metamorphosis and development of insects, characteristics of the orders, suborders, and more important families; the habits of representative species; the anatomy of immature and adult insects; and the classification of insects. (Not open to students who have had courses 1 and 2. Those who have had only one of the above courses, may take this course for half credit only.) *I*; (3).

Professor MACGILLIVRAY

*Prerequisite:* Two years of university work.

**18a-18b. Insect Taxonomy.**—Structures used in the classification of insects and the identification of a representative collection of insects. *I, II*; (5) [W18; 1Q, 2Q, 3Q; 5 quarter hours].

Professor MACGILLIVRAY

*Prerequisite:* Three years university work.

### Courses for Graduates

**102. Research in the Morphology and Embryology of Insects.**—*Twice a week; I, II; (1 or 2 units).* Assistant Professor FOLSOM

**108. Research in Economic Entomology.**—*Twice a week; I, II; (1 or 2 units).*

Assistant Professor FOLSOM

**109. Research in Systematic Entomology.**—*Twice a week; I, II; (1 or 2 units).*

Professor MACGILLIVRAY

### Summer Session Courses

**S 1. General Field and Laboratory Course.**—Essential facts of entomology; its economic importance. Lectures, laboratory, and field trips. Text: Folsom's *Entomology with Reference to its Biological and Economic Aspects*. (2).

Assistant Professor FOLSOM, Dr. GLASGOW

**S 3. Economic Entomology.**—Stages of development of common injurious insects. Laboratory, lectures, and field trips. (3). Assistant Professor FOLSOM, Dr. GLASGOW

*Equivalent:* Entomology 4.

**S 5. Insects of the Vegetable Garden.**—Practical studies of habits, development, and control of insects affecting vegetables. Text: Chittenden's *Insects Injurious to Vegetables*. (2).

Assistant Professor FOLSOM

## Courses for Advanced Undergraduates and Graduates

**S 2. Advanced Course.**—Instruction to meet the purposes of the individual student. (2 or 3). Assistant Professor FOLSOM

**S 8. Advanced Economic Entomology.**—Assigned problems in economic entomology, to prepare advanced students for immediate service as state and government entomologists. (3). Assistant Professor FOLSOM

*Prerequisite:* Fifteen hours' credit in general and economic entomology.

*Equivalent:* Entomology 8.

**S 6. Insects and Human Health.**—Insects and their allies that cause or disseminate disease. Lectures; assigned reading; field observations; and practical demonstrations. The relations of insects to the health of armies will be given special attention. (For pre-medical students, for prospective teachers of biology, and for students who may be interested in army sanitation or in municipal or state sanitary undertakings.) (2).

Dr. GLASGOW

## FARM ORGANIZATION AND MANAGEMENT

WALTER FREDERICK HANDSCHIN, B.S., *Professor*

JAMES BURTON ANDREWS, B.S., *Associate*

HAROLD CLAYTON M CASE, B.S., *Associate*

EMIL RAUCHENSTEIN, B.S., *Associate*

**1. Elementary Farm Management.**—The factors of production in the farm business; systems of farming, their distribution and adaptation; farm organization; the distribution of capital invested; planning of the farm; farm administration or operation; planning of work; handling of labor; development of management efficiency. Lectures, and quiz. II; (5) [3Q; 5 quarter hours]. Professor HANDSCHIN and Mr. RAUCHENSTEIN

(The trip required in this course is the same as in Animal Husbandry 29.)

*Prerequisite:* Three semesters of required work; Economics 1 or 2 and Accountancy 1 or 11. It is also very important that the student have credit or be registered in Agronomy 12, and have at least 6 hours credit in Animal Husbandry 1b, 2b, 4b, or 11b.

## FINE ARTS

(See ART AND DESIGN and MUSIC. Attention is called also to courses in ESTHETICS offered by the departments of PHILOSOPHY, EDUCATION, ARCHITECTURE, and HOME ECONOMICS.)

## FLORICULTURE

(See HORTICULTURE.)

## FRENCH

(See ROMANCE LANGUAGES AND LITERATURE.)

## GEOLOGY

(Including MINERALOGY, PALEONTOLOGY, and GEOGRAPHY.)

ELIOT BLACKWELDER, Ph.D., *Professor*

CHARLES WESLEY ROLFE, M.S., *Professor, Emeritus*

WILLIAM SHIRLEY BAYLEY, Ph.D., *Professor*

THOMAS EDMUND SAVAGE, Ph.D., *Associate Professor*

ALYDA CAREN HANSON, B.S., *Assistant*

RALPH DANIEL REED, B.S., *Assistant*

CARL V. SCHLICHTEN, A.B., *Assistant*

**Major:** One of the elementary courses (1, 43, 20, or 37), followed by 20 hours in courses that have prerequisites in the department, except that courses 20 and 14 may be included by students who take course 1 or 37.

**Minors:** 20 hours selected from any one or two of the following departments: astronomy, botany, chemistry, entomology, physics, and zoology. Students specializing in geography may add to this list sociology, economics, or history.

### Courses for Undergraduates

**1. General Geology.**—The material and structure of the earth, processes of change at work on and in it, origin of its mineral resources, and a summary of its history. Four hours discussion; two hours laboratory; two field trips. (Not open to students who have had Geology 3 or 13. Students who have had Geology 35 will receive only 3 hours credit.) *I* or *II*; (5) [W1; 1Q, 2Q, 3Q; 5 quarter hours].

Professor BLACKWELDER, Mr. REED

**20. General Mineralogy.**—Study of the most common minerals of economic and scientific importance; blow-pipe analysis. (Primarily for engineers and chemists.) Quiz; laboratory. Laboratory fee, \$1.50. *I*; (3) [W20; 1Q; 4 quarter hours].

Professor BAYLEY, Mr. v. SCHLICHTEN

*Prerequisite:* Chemistry 1 and 2, or equivalent.

**47. Systematic Mineralogy.**—Identification of common minerals (mainly non-silicates) by physical tests and crystal form. Crystallography, principles of classification. Lectures; laboratory. Laboratory fee, \$1.75. *II*; (3) [2Q; 4 quarter hours].

Professor BAYLEY, Mr. v. SCHLICHTEN

*Prerequisite:* Chemistry 1 and 2, or equivalent.

**43. Engineering Geology.**—The general principles and broader facts of geology from the engineering viewpoint. Discussions; laboratory. *II*; (3) [3Q; 3 quarter hours].

Professor BLACKWELDER

*Prerequisite:* Elementary chemistry and physics, or registration in same.

**37. Human Geography.**—The influence of geography, topography, climate, and natural resources on human life and history. Discussions; laboratory. *I*; (5) [W37; 1Q, 2Q; 5 quarter hours].

Miss HANSON

**14. Weather and Climate.**—The atmosphere and its processes; weather and forecasting; causes and distribution of climates. *I*; (3) [3Q; 5 quarter hours].

Miss HANSON

**9. Invertebrate Paleontology.**—The more important fossil groups in biological sequence. Lectures; laboratory. Laboratory fee, \$1.00. *I*; (5) [W9; 1Q; 5 quarter hours].

Associate Professor SAVAGE

*Prerequisite:* Geology 1, or 12 hours in zoology.

**22. History of Organic Evolution.**—The evolution of plants and animals, as indicated by the fossil record. *I*; (3) [W22; 1Q; 4 quarter hours].

Associate Professor SAVAGE

*Prerequisite:* Geology 1, or Zoology 1, or Botany 1.

**2. Economic Geology.**—The origin and distribution of the important mineral deposits of North America. Lectures; recitations. Laboratory fee, \$1.00. *II*; (3) [3Q; 4 quarter hours].

Professor BAYLEY

*Prerequisite:* Geology 20 or 47, and 1 or 43.

**4a. Structural Geology.**—Nature and origin of the sedimentary, igneous, and formative structures of the earth; recognition and interpretation. Discussions and laboratory. *I*; (3) [W4a; 1Q; 4 quarter hours].

Professor BLACKWELDER

*Prerequisite:* Geology 1 or 43, or equivalent.



**[40. Reconnaissance Surveys.**—Rapid methods of making topographic and geologic surveys. Exploratory mapping; perspective sketching. Field and laboratory work only. (Primarily for military and geology students.) *II*; (1) Not given, 1918–19.

Professor BLACKWELDER

*Prerequisite:* Consent of instructor.]

**8a. Geography of the War and Reconstruction.**—The topography, resources, and other geographic conditions that influence the conduct of the war and the peace negotiations. Lectures; reading. *II*; (5) [W8a; 1Q, 3Q; 5 quarter hours].

Miss HANSON

**11. Geography of North America.**—Influence of geographic factors on the countries of North America. Lectures; reading and map study. *II*; (3) [2Q; 5 quarter hours].

Miss HANSON

*Prerequisite:* Geology 1, 35, or 37.

**17. Earth History.**—Physical conditions and events in the geological periods, with special reference to North America; discussions; lectures. *I*; (3) [3Q; 3 quarter hours].

Professor BLACKWELDER

*Prerequisite:* Geology 1 or 43.

**39. Geology of Illinois.**—The stratigraphy, structure, geologic history, and resources of the state. *II*; (3) [2Q; 4 quarter hours].

Associate Professor SAVAGE

*Prerequisite:* Geology 1, or 43.

**19. Field Geology.**—Excursion to some important district within 300 miles of Urbana, during the Easter recess. The cost of the trip will be about \$30.00. Credit on the basis of written report. *II*; (1) [3Q; 1 quarter hour].

Professor BLACKWELDER

*Prerequisite:* An elementary course in geology.

**19a. Field Geology.**—Students who have had Geology 19 and wish to visit another locality the following year should register for 19a. The conditions are the same as for 19. *II*; (1).

Members of the department

#### Courses for Advanced Undergraduates and Graduates

NOTE.—Junior standing is required for these courses.

**48. Silicate Minerals.**—(A continuation of Geology 47.) The silicate minerals. Quiz; laboratory. *I*; (3) [3Q; 4 quarter hours].

Professor BAYLEY

*Prerequisite:* Geology 47.

**6. Optical Mineralogy.**—Introduction to the microscopic study of minerals, by means of their behavior in polarized light. Two lectures; four hours laboratory. Laboratory fee, \$1.00. *I*; (3) [W6; 1Q, 2Q; 4 quarter hours].

Professor BAYLEY

*Prerequisite:* Geology 47.

**7. Petrography.**—The principles learned in Geology 6 applied to the study of rocks. The different types of rocks; their origin and classification. Study of representative suite of specimens in the hand specimen and thin section. Laboratory fee, \$2.00. *II*; (3) [2Q; 3Q; 3 quarter hours].

Professor BAYLEY

*Prerequisite:* Geology 6.

**15. Advanced Structural Geology.**—Rock deformation and its results. Discussions; laboratory. *II*; (3) [W15; 1Q; 3 quarter hours].

Professor BLACKWELDER

*Prerequisite:* Geology 1 or 43, and 47.

**16. Stratigraphy.**—The study of fossil faunas, with special reference to Paleozoic invertebrates; principles of correlation and stratigraphy. *II*; (5) [3Q; 5 quarter hours].

Associate Professor SAVAGE

*Prerequisite:* Geology 9.

**42. Stratigraphic Paleontology.**—The invertebrate index fossils of the successive geologic formations, from the Cambrian to the Tertiary. *I, II; (5) [W42; 1Q, 2Q, 3Q; 5 quarter hours].* Associate Professor SAVAGE

*Prerequisite:* Geology 16 and senior standing.

**50. Faunal Studies.**—Investigation of one or more faunal groups of fossil invertebrates. *II; (5) [W50; 1Q, 2Q, 3Q; 5 quarter hours].* Associate Professor SAVAGE

*Prerequisite:* Geology 16.

**60. Thesis.**—Investigation of a problem in the field or laboratory under the immediate guidance of a member of the staff. *I, II; (2): or II; (4).*

*Prerequisite:* Senior standing and 12 hours of geology.

**Geological Club.**—All members and advanced students of the department participate in this for the purpose of considering the results of investigations, reviews of important publications, and special lectures. Advanced students will normally be assigned one paper each quarter.

### Courses for Graduates

For graduate work in geology the student must have a thoro training in the principles of the science, and must have done advanced work in at least one of the branches. Except in unusual cases, which will be decided on their merits, at least 20 hours of geology and two or more weeks of field experience will be required. Graduate students with adequate technical preparation in other sciences may be admitted to graduate courses in certain subjects such as crystallography.

**101. Advanced Crystallography.**—Methods used in measuring, projecting, and calculating crystal forms, and determining the physical properties of crystallized bodies. *Twice a week; I, II; (1 unit) [W101; 1Q, 2Q, 3Q; 1 unit].* Professor BAYLEY

**102. Igneous Petrography.**—The igneous rocks, identification of types, classification, and relationships. Lectures; laboratory. *Twice a week; I; (1 unit) [W102; 1Q; 2Q; 1 unit].* Professor BAYLEY

**103. Metamorphic Petrography.**—Microscopy of the metamorphic rocks; interpretation of their origin. Lectures; laboratory. *Twice a week; I, II; (1 unit) [2Q; 3Q; 1 unit].* Professor BAYLEY

**105. Paleontologic and Stratigraphic Problems.**—The study of fossil invertebrates, by either zoological or faunal groups. *One to three times a week; I, II; (1 unit) [W105; 1Q, 2Q, 3Q; 1 unit].* Associate Professor SAVAGE

**125. Sedimentation.**—The interpretation of sedimentary rocks in terms of their origin. *Twice a week; I, II; (1 unit) [W125; 1Q, 3Q; 1 unit].* Professor BLACKWELDER

**126. Historical Problems.**—Critical study of important questions of geologic history. *Twice a week; I, II; (1 unit) [W126; 1Q, 3Q; 1 unit].* Professor BLACKWELDER

**130. Field Research.**<sup>1</sup>

**135. Research.**—Individual work under the supervision of members of the staff in their respective fields. *Once a week; I, II; (½ to 4 units) [W135; 1Q; 2Q; 3Q; ½ to 4 units].* Professor BLACKWELDER, Professor BAYLEY, Associate Professor SAVAGE

**136. Seminar in Physical Geology.**—Special problems in mineralogy, petrography, economic geology, metamorphism, and related subjects. *Once a week; I, II; (1 unit) [W136; 1Q, 2Q, 3Q; 1 unit].* Professor BAYLEY

### Summer Session Course

**S 130. Field Research.**—Investigation of the geology or geography of an approved district, under general supervision of a member of the department faculty. Weekly reports. *(½ to 3 units).*

Professor BLACKWELDER, Professor BAYLEY, Associate Professor SAVAGE

<sup>1</sup>See Summer Session Course, below.

# GERMANIC LANGUAGES AND LITERATURE

JULIUS GOEBEL, Ph.D., *Professor*

OTTO EDUARD LESSING, Ph.D., *Professor*

NEIL CONWELL BROOKS,<sup>1</sup> Ph.D., *Assistant Professor*

LEONARD BLOOMFIELD, Ph.D., *Assistant Professor, Comparative Philology and German*

CHARLES ALLYN WILLIAMS, Ph.D., *Associate*

ARMIN HAJMAN KOLLER, Ph.D., *Instructor*

**Major:** 20 semester hours in German, excluding German 1, 2, and 3, and including at least 6 semester hours of primarily fourth-year courses.

**Minors:** 20 semester hours in not more than two subjects chosen from the following list: languages, education, history, philosophy, and psychology, provided that 8 semester hours must be selected from a language other than German.

## First-Year Courses

**1. Elementary Course.**—Grammar and easy reading for beginners. (One section is offered in the second semester [quarter] for students who enter the University at that time.) *I* or *II*; (4) [W1, 1b; 1Q, 2Q; 4 quarter hours].

Professor LESSING, Assistant Professor BLOOMFIELD

**W2M. Military German.**—This course is intended to be of practical value to men and women who may serve overseas as soldiers or nurses; suitable exercises in conversation, reading, and writing, employing common terms in military science, surgery, etc. *I*; (4) [W2M; 1Q; 4 quarter hours].

Dr. WILLIAMS

*Prerequisite:* One year of high-school German or German S 1, or German 1 taken in the second semester.

**3. Narrative Prose.**—(Continuation of German 1.) Reading and grammar. *II*; (4) [2Q, 3Q; 4 quarter hours].

Professor LESSING, Assistant Professor BLOOMFIELD

*Prerequisite:* German 1, or equivalent demonstrated by examination.

## Second-Year Courses

**4. Prose Reading.**—Selections from standard prose writers; sight reading; composition. *I* or *II*; (4) [W4; 1Q; 4 quarter hours; 4a, 4b; 2Q, 3Q; 3 quarter hours].

Assistant Professor BLOOMFIELD, Dr. WILLIAMS, Dr. KOLLER

*Prerequisite:* German 2 or 3, or two years of high-school German, or equivalent demonstrated by examination.

**5. Narrative and Historical Prose.**—At the option of the instructor one classic in verse may also be read. Composition. *I* or *II*; (4) [2Q, 3Q; 3 quarter hours].

Dr. KOLLER

*Prerequisite:* German 4, or three years of high-school German, or equivalent demonstrated by examination.

**6. Scientific German.**—The rapid reading of works of a general scientific character. Usually one section is offered primarily for students in the curriculums in chemistry and chemical engineering. (Parallel with 5. Students may not take both 5 and 6 for more than a total of six quarter hours' credit without special permission of the department.) *I* or *II*; (4) [W6, 1Q, 4 quarter hours; 6b, 2Q, 2 quarter hours; 6a, 2Q, and 6b, 3Q, 3 quarter hours].

Dr. WILLIAMS, Dr. KOLLER

*Prerequisite:* German 4, or three years of high-school German, or equivalent demonstrated by examination.

<sup>1</sup>On leave in National Service.

## Third-Year Courses

7. Modern Fiction.—(Intended primarily for students who have had 5. Not open to those who have had any course more advanced than 5.) *II*; (3) [3Q; 3 quarter hours].  
Dr. KOLLER

*Prerequisite:* German 5, or equivalent.

[10. Introductory Goethe Course.—Not given, 1918–19.

Assistant Professor BROOKS]

[14. Introductory Schiller Course.—Not given, 1918–19.

Assistant Professor BROOKS]

16. Elementary Composition and Conversation.—*I*; (2) [W16; 1Q; 3 quarter hours].

Dr. KOLLER

*Prerequisite:* German 5, or equivalent.

17. Intermediate Composition and Conversation.—*II*; (3) [2Q, 3Q; 3 quarter hours].

*Prerequisite:* German 16.

[23. German Novel.—Rapid reading of representative novels, beginning with Goethe's *Werther*. Assigned readings. (This is a distinctly more advanced course than German 7.) Not given, 1918–19.  
Dr. KOLLER]

24. Modern German Drama.—Rapid reading of dramas by Grillparzer, Hebbel, Hauptmann, and others. *I*; (3) [W24, W24b; 1Q, 2Q; 3 quarter hours].

Professor LESSING

*Prerequisite:* German 5, or equivalent.

[28. German Lyrics and Ballads; Volkslied.—Not given, 1918–19. Dr. WILLIAMS]

## Primarily Fourth-Year Courses

NOTE.—For a major in German, students are required to take at least six semester hours of these primarily fourth-year courses; seniors who are preparing to teach German should take German 29.

8. Schiller.—The life of Schiller; *Wallenstein* and other selections. *II*; (3) [3Q; 3 quarter hours].

Professor LESSING

*Prerequisite:* Three years of college German, or equivalent.

19a-19b. Goethe's *Faust*.—The *Faust* legend and early *Faust* books and plays; the genesis of Goethe's *Faust*; reading of both parts. *I, II*; (2) [W19a, 19b, 19c; 1Q, 2Q, 3Q; 3 quarter hours].

Professor GOEBEL

*Prerequisite:* Three years of college German, or equivalent.

[25. Teachers' Course.—Not given, 1918–19. Dr. KOLLER]

26a. German Literature to the End of the Reformation.—Lectures; recitations; reports on assigned reading. *I*; (3) [W26a; 1Q; 3 quarter hours].

Professor LESSING

*Prerequisite:* German 10, or 23, or 24, or 28a-28b.

26b. German Literature Since the Reformation.—Lectures; recitations; reports on assigned collateral reading. *II*; (3) [2Q, 3Q; 3 quarter hours].

Professor LESSING

*Prerequisite:* German 26a.

[27. Lessing.—Not given, 1918–19. Professor LESSING]

[29. Advanced Composition.—Not given, 1918–19. Dr. KOLLER]

[30. Thesis Course.—Not given, 1918–19. Professor GOEBEL, and others]

31. Middle High German.—*I*; (3) [W31; 1Q; 3 quarter hours].

Professor GOEBEL

*Prerequisite:* Senior or graduate standing; three years of college German.

## Courses for Graduates

Students desiring to take German as a major should have completed a four years' course of undergraduate study in German, corresponding to the four years' course at this University, and should be familiar with the principal works of the writers of the classical and modern periods of German literature, show a general knowledge of the history of German literature, and be able to follow lectures in the German language.

A reading knowledge of Latin and French is required. It is desirable that candidates for the degree of Ph.D. have some knowledge of Greek. All students are expected to have had a course in German history.

101. Seminar in Germanic Philology.—Training in original research; results of special value may be published in the *Journal of English and Germanic Philology*. *Once a week; I, II; (1 unit)* [W101; 1Q, 2Q, 3Q; once a week]. Professor GOEBEL

[103. Introduction to the Historical Study of the Germanic Languages.—Not given, 1918–19. Professor GOEBEL]

[104. Gothic.—Not given, 1918–19. Professor GOEBEL]

[105. Old High German.—Not given, 1918–19. Dr. WILLIAMS]

[109. Goethe's and Schiller's Philosophy.—Not given, 1918–19. Professor GOEBEL]

[110. Early German Drama.—Not given, 1918–19. Assistant Professor BROOKS]

[113. German Literature of the Fifteenth and Sixteenth Centuries.—Not given, 1918–19. Assistant Professor BROOKS]

[115. History of German Literature of the Nineteenth Century.—Not given, 1918–19. Professor LESSING]

[116. Medieval German Literature with Reference to Political, Religious, and Social History.—Not given, 1918–19. Professor LESSING]

[117. History of German Literature During the Eighteenth Century.—Not given, 1918–19. Professor GOEBEL]

[118. The German Drama Since Schiller.—Not given, 1918–19. Professor LESSING]

[119. The German Novel.—Not given, 1918–19. Professor LESSING]

[121. Walther von der Vogelweide.—Not given, 1918–19. Professor GOEBEL]

[121a. The Nibelungenlied.—Not given, 1918–19. Professor GOEBEL]

121b. Gudrun.—Lectures and interpretations. *Three times a week; II; (1 unit)* [2Q, 3Q; three times a week]. Professor GOEBEL

## GREEK

(See CLASSICS.)

## HEBREW

(See ORIENTAL LANGUAGES AND LITERATURE.)

## HISTOLOGY

(See PHYSIOLOGY.)

## HISTORY

EVARTS BOUTELL GREENE, Ph.D., *Professor*

CLARENCE WALWORTH ALVORD, Ph.D., *Professor*

LAURENCE MARCELLUS LARSON, Ph.D., *Professor*

ALBERT HOWE LYBYER,<sup>1</sup> Ph.D., *Professor*

ALBERT TEN EYCK OLMSTEAD, Ph.D., *Professor*

WILLIAM SPENCE ROBERTSON, Ph.D., *Associate Professor*

ARTHUR CHARLES COLE, Ph.D., *Assistant Professor*

PAUL VAN BRUNT JONES, Ph.D., *Associate*

BYNE FRANCES GOODMAN,<sup>2</sup> A.M., *Assistant*

KATHERINE THEILEN RUCKMICH,<sup>2</sup> A.M., *Assistant*

ROBERT ROYAL RUSSEL,<sup>3</sup> A.M., *Assistant*

ANITA LIBMAN,<sup>3</sup> A.B., *Assistant*

*Cooperating:*

WILLIAM ABBOTT OLDFATHER, Ph.D., *Professor, Greek*

JAMES GARFIELD RANDALL, Ph.D., *Professor of History and Economics, Roanoke College, (Summer Session)*

**Major:** 20 hours, excluding History 1a and 2a, and including (a) either History 1b or 2b; (b) six hours selected from courses for advanced undergraduates and graduates; and (c) any other courses offered in the department.

**Minors:** 20 hours, including (a) either Economics 1 or Political Science 1 and 3; and (b) one or two of the following subjects: economics, political science, law, sociology, the history of any literature, history of education, philosophy, and physiography. Courses in any foreign language may be accepted in satisfaction of this requirement, if the student can show his ability to read ordinary historical prose in that language.

### Courses for Undergraduates

**1a-1b. Modern History of Continental Europe.**—Europe from the fourth century to the present time. *I, II*; (4 or 3)<sup>4</sup> [W1; 1Q, 2Q, 3Q; 4 or 3 quarter hours].

Professor OLMSTEAD, Dr. JONES, Miss GOODMAN, Mrs. RUCKMICH, Mr. RUSSEL, Miss LIBMAN

NOTE.—Three credits only for seniors.

**2a-2b. English History.**—*I, II*; (3 or 2)<sup>5</sup> [W2; 1Q, 2Q, 3Q; 3 or 2 quarter hours].

Professor LARSON, Assistant Professor COLE, Miss GOODMAN, Mr. RUSSEL  
NOTE.—Two credits only for seniors.

**3a-3b. History of the United States.**—*I, II*; (3) [W3; 1Q, 2Q, 3Q; 3 quarter hours].

Professor GREENE, Associate Professor ROBERTSON, Assistant Professor COLE  
*Prerequisite:* One year of college work.

**5. History of Greece.**—*I*; (3). (See Greek 20.) Professor OLDFATHER

*Prerequisite:* One college course in history or the classics; sophomore standing.

**6. History of Rome.**—*II*; (3) [2Q, 3Q; 3 quarter hours]. (See Latin 19.)

Professor OLDFATHER  
*Prerequisite:* One college course in history or the classics; sophomore standing.

**7a-7b. The Great War: Origins and Issues.**—*I, II*; (3) [W7; 1Q, 2Q, 3Q; 3 quarter hours]. Professor OLMSTEAD, Dr. JONES, Mrs. RUCKMICH

**[8a-8b. Western Europe in the Middle Ages.**—*I, II*; (3). Not given, 1918-19.

Dr. JONES]

<sup>1</sup> On leave for diplomatic service.

<sup>2</sup> First quarter.

<sup>3</sup> Second and third quarters.

<sup>4</sup> Three credits for seniors; four credits for students other than seniors.

<sup>5</sup> Two credits for seniors; three credits for students other than seniors.

**[17. History of Illinois.**—Political, economic, and social development of a typical commonwealth in the Middle West, considered in its relation to the general course of American history. *II*; (2). Not given, 1918–19.

*Prerequisite:* Sophomore standing in any college of the University.]

**18. The Teaching of History.**—Preparation of students for the teaching of history in secondary schools. *II*; (2) [2Q, 3Q; 2 quarter hours].

Assistant Professor COLE

*Prerequisite:* History, or its equivalent; senior standing.

**28a-28b. Thesis.**—Special training in investigation for candidates for honors and for other seniors. *I, II*; (2) [W28; 1Q, 2Q, 3Q; 2 quarter hours].

Associate Professor ROBERTSON

**50. Ancient History.**—The development of civilization in the Mediterranean basin from prehistoric times to the Roman empire. *I*; (3) [2Q, 3Q; 3 quarter hours].

Professor OLMSTEAD

*Prerequisite:* Sophomore standing.

**[51. Hebrew History.**—The Hebrew people to the revolt under Hadrian; source problems, as they relate to Biblical criticism, Biblical history, and the general history of the times. *II*; (3). Not given, 1918–19.

Professor OLMSTEAD

*Prerequisite:* Junior standing.]

### Courses for Advanced Undergraduates and Graduates

(Open to seniors and juniors of high standing. The ability to use modern languages is desirable.)

**4a-4b. The Constitutional History of England.**—(Important for students specializing in history, political science, or law.) *I, II*; (3) [W4; 1Q, 2Q, 3Q; 3 quarter hours].

Professor LARSON

*Prerequisite:* One year of college history.

**9a-9b. The Renaissance and the Reformation.**—The transition from medieval to modern ideals. *I, II*; (3) [2Q, 3Q; 3 quarter hours].

Dr. JONES

*Prerequisite:* History 1.

**[11. Special Topics in Ancient History.**—Methods of research in Greek and Roman history. The decline of ancient civilization. *II*; (3). Not given, 1918–19.]

**14a-14b. History of American Political Ideals.**—*I, II*; (3) [2Q, 3Q; 3 quarter hours].

Professor GREENE

*Prerequisite:* One year of college work in either history or political science.

**15. The Civil War and the Reconstruction.**—The ante-bellum South and its destruction, 1844-1870. The civil war in the light of the forces which tended to hasten or obstruct the clash of arms. *I*; (3) [W15; 1Q; 3 quarter hours].

Assistant Professor COLE

*Prerequisite:* History 3.

**16a-16b. The History of the Exploration and Colonization of the West.**—*I, II*; (3) [W16; 1Q, 2Q, 3Q; 3 quarter hours].

Professor ALVORD

*Prerequisite:* History 3.

**[19. France in the Feudal and Later Middle Ages.**—(A reading knowledge of French is desirable.) *II*; (3). Not given, 1918–19.

Dr. JONES

*Prerequisite:* History 1.]

[20a. **Europe Before the Great War.**—National reorganization, material progress, and world-wide expansion, 1849–1891. *I*; (3). Not given, 1918–19.

Professor LYBYER

*Prerequisite:* One year of college history, economics, or political science.]

[20b. **The Great War.**—The history of Europe, 1891–1914, with special reference to the formation of alliances and the development of causes of conflict; the history of the war itself. *II*; (3). Not given, 1918–19.

Professor LYBYER]

21. **The Recent History of the United States.**—Historical introduction to contemporary American politics. *I*; (3) [W21; 1Q; 3 quarter hours].

Associate Professor ROBERTSON

*Prerequisite:* History 3b.

26. **History of the Latin-American Colonies.**—Political, economic, social, and intellectual life of Spain during the period of discovery; exploration, settlement, and civilization of Spanish America and the Philippines. *I*; (3) [W26; 1Q; 3 quarter hours].

Associate Professor ROBERTSON

*Prerequisite:* History 1 or 3.

27. **Latin American Republics.**—The leading Latin-American states; political parties; existing governments; relations with Europe and the United States. The old régime in Texas, Mexico, and California. *II*; (3) [2Q, 3Q; 3 quarter hours].

Associate Professor ROBERTSON

*Prerequisite:* History 3.

29. **The Far East.**—The contact of Western nations with the Far East from the sixteenth century to the present time. *II*; (3) [3Q; 3 quarter hours].

*Prerequisite:* One year of college history, economics, or political science, and senior standing.

[30a-30b. **The Ottoman Empire and the Question of the Near East.**—The rise and greatness, and the beginning of the decline, of the Turkish power, 1300–1792. Turkey since 1792, with special attention to internal conditions, international relations, and the antecedents of the Great War. *I, II*; (2). Not given, 1918–19.]

[40. **History of the British Commonwealth of Nations.**—The expansion of England; imperial organization; the development of the colonial nations. *I*; (2). Not given, 1918–19.]

[52. **East and West in Ancient Times.**—(Continuation of History 50). Persia, Parthia, and the Sassanids, to the Moslem conquest; the Eastern Question; interrelation of East and West. *II*; (3). Not given, 1918–19.

*Prerequisite:* Junior standing, including History 5, 6, or 50.]

[53. **Assyrian History.**—The Assyrian Empire; sources; political thought; government of dependencies; parallels to more modern imperial states; economic life. *I*; (3). Not given, 1918–19.

*Prerequisite:* Senior standing and the consent of the instructor.]

### Courses for Graduates

Graduate work in history presupposes two years of college work in this subject, or sixteen semester hours, which should include courses in European and American history corresponding roughly to History 1 and 3 in this University. Linguistic preparation,



especially in French and German is important. For medieval history some knowledge of Latin is essential, and Spanish is useful for certain fields of American History.

Advanced courses in history at the University are of three kinds:

(1) For information and guidance in general reading. (2) Instruction in methodology, historiography, and bibliography. A part of this work (in course 103) is required of all graduate students in history during their first year. (3) Seminar courses for the study of special fields with a view to training in the methods of historical criticism and research.

**Illinois Historical Survey.**—Students have an opportunity to pursue research in western history in connection with the Illinois Historical Survey, an organization for the purpose of carrying on systematic studies in the history of Illinois.

Attention is also called to the fact that the University has for some time cooperated with the Trustees of the State Historical Library, in the gathering and editing of archive material. As a result instructors and graduate students in the department have contributed from time to time to the publications of the Library, and have been given useful training in the study of manuscript as well as printed material.

The **History Club**, consisting of graduate students in the department, which meets twice a month, gives an opportunity for informal discussion of topics in history.

**101. Seminar in American History.**—Bibliography; solution of typical problems; reports on investigations. *I, II; (1 to 2 units).*

In connection with this course, direction in research is offered as follows:

- |                                 |                  |
|---------------------------------|------------------|
| A. American history before 1815 | Professor GREENE |
| B. American history since 1815  |                  |

Associate Professor ROBERTSON, Assistant Professor COLE

- |                            |                               |
|----------------------------|-------------------------------|
| C. The history of the West | Professor ALVORD              |
| D. American church history | Professor GREENE              |
| E. Latin-American history  | Associate Professor ROBERTSON |

**[102. Studies in English History.**—Church and state in the medieval and early modern period; examination of documentary material. *Twice a week; I, II; (1 unit).* Not given, 1918-19.]

**103. Historiography and Historical Method.**—The technic of historical investigation. Required of all candidates for an advanced degree in history who do not present evidence of similar training elsewhere. *Twice a week; I; (½ unit).* [1Q, 2Q].

Assistant Professor COLE

**104. Seminar in English and Continental European History.**—Expansion of Europe; bibliography, historiography, and selected problems; reports on researches. *I, II; (1 to 2 units).*

In connection with this course, direction in research is offered as follows:

- |   |                  |
|---|------------------|
| A. Medieval history                     | Professor LARSON |
| B. Modern history of continental Europe | Professor LYBYER |
| C. English history                      | Professor LARSON |
| D. Renaissance and Reformation          | Dr. JONES        |
| E. Asiatic Relations                    | Professor GREENE |

**105. Studies in the History of the West.**—Subject for 1918-19: The Development of the Ordinance of 1787. *Once a week; I, II; (½ to 1 unit).* Professor ALVORD

**111. Spanish-American Relations.**—The relations of the Latin-American States with Europe and the United States. The Monroe Doctrine, the development of international trade, etc. *Once a week; I, II; (½ to 1 unit).* Associate Professor ROBERTSON

[112. **Studies in American Religious History.**—Questions of Church and State. *Twice a week; II; (1 unit).* Not given, 1918–19.]

150. **Research in Ancient Oriental History.**—*I, II; (1 unit).*

Professor OLMSTEAD

### Summer Session Courses

S 2. **English History, 1713-1918.**—The history of England since the Treaty of Utrecht. *(2½).*

Professor LARSON

S 3b. **American History, 1783-1861.**—The National period to the Civil War. *(2½).*

Professor RANDALL

*Prerequisite:* One year of college work or its equivalent.

### Courses for Undergraduates and Graduates<sup>1</sup>

S 21. **Recent American History, 1890-1918.**—A special treatment of international relations will be combined with a study of domestic political problems. *(2½).*

Professor RANDALL

*Prerequisite:* One college course in American History or its equivalent.

S 40. **The History of the British Commonwealth of Nations.**—The expansion of England; imperial organization; the development of the colonial nations. *(2).*

Professor LARSON

*Prerequisite:* One college course in English or European history or its equivalent.

### Courses for Graduates

S 101. **Seminar on War Problems.**—War experience in the United States examined with special reference to the Civil War. Credit arranged.

Professor RANDALL

S 102. **Studies in English History.**—An introduction to the historical sources and literature of the sixteenth century through a detailed study of a few of the more important problems of the Tudor period. Credit arranged.

Professor LARSON

## HOME ECONOMICS

ISABEL BEVIER, Ph.M., *Professor and Director*

CORA EMELINE GRAY, M.S., *Associate*

FLORENCE HARRISON, M.A., *Associate*

MAMIE BUNCH, A.B., *in charge of Extension Work*

LORINDA PERRY, Ph.D., *Associate*

LEONA HOPE, *Associate*

GEORGIA ELIZABETH FLEMING, B.S., *Associate*

VIOLA JENNIE ANDERSON, B.S., *Associate*

FLORENCE HELEN CHURTON, B.S., *Associate*

EMMA LOUISE WARDELL, M.S., *Associate*

ALICE LEORA EDWARDS, A.M., *Associate*

SARAH AUGUSTA SUTHERLAND, B.S., *Instructor*

LYDA BOND, B.S., *Instructor*

EDA AUGUSTA JACOBSEN, A.M., *Assistant*

GERTRUDE LUCILE SWIFT, A.B., *Assistant*

MARGARET HATFIELD, A.B., *Assistant*

SUSANNAH USHER, B.S., *Special Lecturer*

LUCILE WHEELER ADAMS, A.M., *Lecturer*

<sup>1</sup>At least junior standing required.

*Cooperating:*JEAN GILBERT MACKINNON, A.M., *Instructor (Summer Session)*MADGE LAMOREAUX, B.S., *Assistant (Summer Session)*

**Major:** Twenty hours from any courses offered by the department, excluding Home Economics 2 and 7, and including Home Economics 3, 5, 6, and 12. To satisfy the requirement for the major, students transferring from other institutions must take at least one of the following: Home Economics 4, 5, 11, 17, 18, or 28.

**Minors:** Twenty hours from either (a) chemistry, bacteriology, and physiology; or (b) economics (a minimum of eight hours), with one or two of the following subjects: art and design, education, history, psychology, and sociology.

**1. Selection and Preparation of Food.**—The nature and uses of foods, their chemical composition, and the changes effected by heat, cold, or fermentation; principles of selection, illustrated by marketing expeditions; processes of manufacture; combinations of different kinds. Laboratory fee, \$3.00. *II*; (3) [3Q; 3 quarter hours].

Miss ANDERSON, Miss HATFIELD

*Prerequisite:* Entrance credit in physics; Chemistry 1.

**2. Home Architecture and Sanitation.**—Situation, surroundings, and construction of the house; hygiene, heating, lighting, ventilation, water supply, and drainage. House planning and sanitary plumbing, fixtures, and internal drainage; making skeleton plans. *I*; (2) [W2; 1Q; 3 quarter hours].

Miss FLEMING, Miss HOPE, Miss JACOBSEN, Assistant Professor NEWCOMB

**3. Elementary Home Decoration.**—Evolution of the house and home; homes of primitive peoples; theory of color and its application in home decoration; furnishings from a sanitary and artistic standpoint. *II*; (3) [3Q; 3 quarter hours].

Professor BEVIER, Miss HOPE, Miss PERRY

*Prerequisite:* Art and Design 12; Home Economics 2; junior standing.

**4. Food and Nutrition.**—Physiological, chemical, and bacteriological problems of food and nutrition. Individual investigation. Laboratory fee, \$5.00. *I*; (5) [W4; 1Q and 2Q; 8 quarter hours].

Miss WARDELL

*Prerequisite:* Bacteriology 5; Chemistry 13a, 9, 9c; Home Economics 5.

**5. Dietetics.**—Diet; the relation of food to health; influence of age, sex, and occupation on diet; the construction of dietaries; dietetic treatment of certain diseases. Laboratory. Laboratory fee, \$3.00. *I* or *II*; (3) [W5; 1Q or 2Q; 4 quarter hours].

Miss EDWARDS

*Prerequisite:* Home Economics 1, 6; Physiology 4.

**6. Economic Uses of Food.**—(Continuation of Home Economics 1.) The economics of the food question; uses and applications of preservatives. Laboratory fee, \$3.00. *I*; (4) [W6; 1Q and 2Q; 8 quarter hours].

Miss ANDERSON, Miss CHURTON, Miss HATFIELD

*Prerequisite:* Home Economics 1; credit or concurrent registration in Chemistry 2a.

**7. Textiles.**—Development of the textile industry from primitive times to the present; the important fibers and materials made from them; movements for bettering textile conditions. *I* or *II*; (2) [W7; 1Q or 2Q; 3 quarter hours].

Miss SUTHERLAND, Miss JACOBSEN

**9. Problems in Extension.**—Activities and organizations of women with special emphasis upon extension work. *II*; (3) [3Q; 3 quarter hours].

Professor BEVIER, Miss BUNCH

*Prerequisite:* Senior standing.

10. **Household Management.**—Expenditure of the income; organization of the household; care of the house and family; household equipment; the domestic service problem. Particularly adapted to teachers in vocational schools. *I* or *II*; (2) [W10; 1Q or 2Q; 3 quarter hours]. Miss GRAY

*Prerequisite:* Home Economics 2, 6; Economics 1 or 2.

11. **Teachers' Course.**—The best methods of presenting the work, and its correlation with other subjects. Practise in planning courses and presenting lessons. Two inspection trips are made to other schools, one in April and one in May. The total cost does not exceed \$5.00. *II*; (3) [For those taking the Smith-Hughes course, 2Q; 2 quarter hours; for all others, 2Q and 3Q; 5 quarter hours].

Professor BEVIER, Miss HARRISON, Miss CHURTON, Miss SUTHERLAND

*Prerequisite:* Home Economics 5, 12 and 13; senior standing.

12. **Clothing.**—Demonstrations and laboratory work in methods of drafting, cutting, fitting, and making of garments from individual designs. *II*; (3) [2Q and 3Q; 5 quarter hours]. Miss FLEMING, Miss JACOBSEN

*Prerequisite:* Home Economics 19. Proof by examination of ability to do plain sewing.

13. **History of Home Economics.**—The development of home economics as one of the factors in the education of women; the work in different types of institutions; the planning of courses for these types. *I*; (2) [W13; 1Q; 2 quarter hours].

Professor BEVIER, Miss CHURTON

*Prerequisite:* Senior standing.

14. **Problems in the Preparation and Service of Food.**—Preparation and serving of meals for a family with particular reference to cost; care of a house; laundry. Particularly adapted to teachers in vocational schools. Laboratory fee, \$13.50. *I* or *II*; (3) [W14; 1Q or 2Q or 3Q; 4 quarter hours]. Miss GRAY, Miss EDWARDS

*Prerequisite:* Home Economics 6, 10. *Prerequisite or parallel:* Home Economics 5.

15. **Economics of the Family Group.**—Brief history of the family with special reference to the development of the household; consumption of wealth; family income; family expenditures; interdependence of the family and the community. *I* or *II*; (3) [W15; 1Q and 2Q or 2Q and 3Q; 6 quarter hours]. Miss PERRY

*Prerequisite:* Home Economics 3, 5, 12 or 31; Economics 1 or 2.

17. **Problems in the Study of Textiles.**—Microscopic and chemical analyses of fabrics; dyeing; special problems. Laboratory fee, \$2.00. *II*; (3) [3Q; 4 quarter hours].

Miss SUTHERLAND

*Prerequisite:* Home Economics 7, 12, or 31; Chemistry 1, 2a.

18. **Lunch Room Management.**—A. Organization and equipment of lunch rooms. Laboratory practise. Laboratory fee, \$5.00. *I* or *II*; (3) [W18A; 1Q and 2Q or 2Q and 3Q; 4 quarter hours]. Miss BOND

B. Marketing. Brief review of the factors in marketing as background for detailed study. Foods are studied from the standpoint of quality, grades, seasons, costs, methods of buying for private families and lunch rooms. "B" is open to other students than those taking "A" and is required of all who take "A" in 1918-19. *I*; (2) [W18B; 1Q or 2Q; 3 quarter hours]. Miss USHER, Miss BOND

The class takes a trip to Chicago to inspect various types of lunch rooms. The cost of the trip is about \$15.00.

*Prerequisite:* Home Economics 5; Economics 1 or 2; senior standing.

**19. Dress Design.**—Study of dress from artistic, historic, economic, and hygienic standpoints. Application of principles of design to silhouette, proportion, line, and color. *I*; (3) [W19; 1Q or 2Q; 3 quarter hours]. Miss HOPE

*Prerequisite:* Art and Design 1, 12; Home Economics 7.

**20. Infant Nutrition.**—Lectures; readings; discussions. *II*; (2) [3Q; 3 quarter hours].

Miss WARDELL

*Prerequisite:* Home Economics 4; senior standing.

**21. Weaving.**—Application of the principles of design to weaving. Lectures; laboratory. *I* or *II*; (1) [W21; 1Q or 3Q; 1 quarter hour].

Miss SUTHERLAND, Miss JACOBSEN

*Prerequisite:* Art and Design 1, 12; Home Economics 7.

**[22. Theory of Form and Color.**—Importance of value and intensity; analagous and contrasted harmony; keying; balance; study of plant forms and textiles. *I*; (3). Not given, 1918–19.

*Prerequisite:* Architecture 23.]

**[23. Theory of Form and Color.**—Principles of rhythm, balance, harmony; proportion; composition; still-life. *II*; (3). Not given, 1918–19.

*Prerequisite:* Home Economics 22.]

**[24. Color Application (Freehand).**—Specific problems in modern interiors considering principles of form, color, balance, emphasis, and unity. *I*; (2). Not given 1918–19.

*Prerequisite:* Home Economics 23.]

**[25. Color Application (Freehand).**—(Continuation of 24). *II*; (2). Not given, 1918–19.

*Prerequisite:* Home Economics 24.]

**[26. Floor and Wall Coverings; Pictures.**—The selection, framing, and hanging of pictures; floor and wall coverings, hangings and furniture as related to decorative unity of whole; relation of design to texture; scale. *I*; (3). Not given, 1918–19.

*Prerequisite:* Architecture 16, 34.]

**[27. Furniture and Brasses.**—History of furniture; relation of furniture to architecture; studies in period styles. *II*; (3). Not given, 1918–19.

*Prerequisite:* Home Economics 3, 23; Architecture 16.]

**28. Organization of the Household.**—Factors determining form and functions of the household; division of labor; use of machinery; domestic service; retail markets; scientific management; cooperative housekeeping. *I* or *II*; (3) [3Q; 3 quarter hours].

Miss PERRY

*Prerequisite:* Home Economics 15.

**29. Garment Making.**—(Open only to those taking the Smith-Hughes course).<sup>1</sup> Use of the sewing machine and its attachments; application of line and form through drafting; hygienic aspects of clothing; making of simple cotton garments. *I*; (2) [W29; 1Q; 2 quarter hours].

Miss JACOBSEN

*Prerequisite:* Home Economics 7; Art and Design 12.

**30. Designing and Making of Typical Garments.**—(Open only to those taking the Smith-Hughes course.)<sup>1</sup> Adaptation of commercial patterns; demonstrations and laboratory work in the construction of typical garments from individual designs. *II*; (3) [2Q; 3 quarter hours].

Miss JACOBSEN

*Prerequisite:* Home Economics 29.

<sup>1</sup>See page 162.

**31. Clothing.**—Study of economic aspects of clothing; clothing budgets; comparative values; use of unusual fabrics; problems of remodeling and renovation. *II*; (3) [3Q; 2 quarter hours].

Miss FLEMING, Miss JACOBSEN

*Prerequisite:* Home Economics 30 and 32, or 12; Economics 2.

**32. Dress Design.**—(Open only to those taking the Smith-Hughes course.)<sup>1</sup> Application of unity, proportion, line, and color to dress design. Consideration of appropriateness and harmony of costume with type and occupation. Development of modern costume from historic sources. *I*; (1) [2Q; 1 quarter hour].

Miss HOPE

**33. Advanced Dietetics.**—Intensive study of various dietetic problems; food for the child of school age; school lunches; types of dietaries for the sick. Laboratory fee, \$2.00. (Offered in 1918-19 only.) [3Q; 3 quarter hours].

Miss WARDELL, Miss EDWARDS

*Prerequisite:* Home Economics 5.

### Courses for Graduates

This department offers graduate work along two lines, one dealing with the applications of the biological and physical sciences to the problems of food and nutrition; the other with the economic problems of the household. In either case the student must offer a minimum of ten hours' work with food, eight with textiles and clothing, five with the house, eight of chemistry, eight of biological science, and three in the principles of economics. In addition each student must offer five additional hours in economics or a second year of chemistry, including quantitative and organic chemistry, according to the line of specialization.

**101. Home Economics.**—Origin and development of home economics; its industrial, educational, and sociological aspects. *Twice a week; I; (1 unit). Time to be arranged.* [2Q].

Professor BEVIER

**102. Special Investigations.**—Problems in the application of the principles of bacteriology, chemistry, and physiology to the ordinary processes used in the preparation of food; problems in nutrition. *Twice a week; I, II; (1 unit). Time to be arranged.* [1Q, 2Q, 3Q].

Professor BEVIER, Miss WARDELL

**103. Seminar.**—Recent advances in nutrition. *Once a week; I; (½ unit). Time to be arranged.* [2Q].

Miss WARDELL

**104. Economic Problems of the Family Group.**—An intensive study of the economic phases of selected problems of the household. *Twice a week; I, II; (1 unit). Time to be arranged.*

Dr. PERRY

### Summer Session Courses

**S 7. Institutional Cookery.**—Cooking in large quantities. The work includes the planning of meals and the selection and preparation of food in quantity. Opportunity is offered for practise in both cafeteria and table service. Laboratory fee, \$2.50. (2).

Miss BOND

*Prerequisite:* At least one year of experience in institutional or home cooking.

**S 8. Fundamentals of Food and Nutrition in Relation to the War.**—A general survey of the world's food problem in its geographic, economic, and nutritional aspects. Laboratory work in the use and conservation of foods. Laboratory fee, \$2.00. (3).

Miss MACKINNON

*Prerequisite:* A year of general chemistry; a course in general physiology.

<sup>1</sup>See page 162.

**S 4. Clothing.**—Textiles used in clothing; cost, care, and remodeling of clothing; use of patterns; drafting; the making of clothing. Lecture and discussion. (2).

Miss LAMOREAUX

*Equivalent:* Two-thirds of Home Economics 12.

**S 5. Millinery.**—Design and construction of wire, buckram, and cape net frames; covering with velvet and straw. Demonstrations and laboratory. (1½).

Miss LAMOREAUX

## HORTICULTURE

JOSEPH CULLEN BLAIR, M.S., *Professor, Horticulture*

JOHN WILLIAM LLOYD, Ph.D., *Professor, Olericulture*

CHARLES SPENCER CRANDALL, M.S., *Professor, Pomology*

HERMAN BERNARD DORNER, M.S., *Professor, Floriculture*

BETHEL STEWART PICKETT, M.S., *Professor, Pomology*

ERNEST WINFIELD BAILEY,<sup>1</sup> M.S., *Assistant Professor, Pomology*

FREDERICK NOBLE EVANS, M.L.A., *Assistant Professor, Landscape Gardening*

HARRY WARREN ANDERSON, Ph.D., *Assistant Professor, Pomology*

PHILIP AUGUSTUS LEHENBAUER, Ph.D., *Assistant Professor, Plant Physiology*

WARREN ALBERT RUTH, A.M., *Associate, Pomology*

ALFRED JOSEPH GUNDERSON, B.S., *Associate, Pomology*

WILLIAM SANFORD BROCK, A.B., B.S., *Associate, Pomology*

ARTHUR SAMUEL COLBY, M.S., *Associate, Pomology*

CHANCE STEVENS HILL, B.S., *Associate, Landscape Gardening*

HOWARD DEXTER BROWN,<sup>2</sup> M.S., *Instructor, Olericulture*

MAY ELIZABETH McADAMS, B.S., *Instructor, Landscape Gardening*

EMIL CONRAD VOLZ, M.S., *Instructor, Olericulture*

HARRY WARREN DAY, B.S., *Assistant, Olericulture*

JERRY SOTOLA, B.S., *Assistant, Olericulture*

**[1a. Elements of Horticulture.**—Fruit growing, vegetable gardening, and ornamental planting, with special reference to the farm home. (Required of all freshmen in the general curriculum in agriculture.) Recitations; practical exercises. *I*; (2). Not given, 1918–19. (To meet war conditions Horticulture 47 was substituted for this course.)]

**[1b. Elements of Horticulture.**—(A continuation of Horticulture 1a. Required of all freshmen in the general curriculum in agriculture.) *II*; (2). Not given, 1918–19. (To meet war conditions Horticulture 48 was substituted for this course.)]

**2. Small Fruits and Grapes.**—History; extent of cultivation; soil; location; fertilizers; propagation; planting; tillage; pruning; insect enemies; diseases; varieties; harvesting; marketing. Lectures; reference readings; laboratory. *II*; (3) [3Q; 4 quarter hours].

Mr. COLBY

*Prerequisite:* Horticulture 1a.

**3. Commercial Vegetable Gardening.**—The production and marketing of vegetables on a commercial scale. Lectures; reference readings; practical exercises in the department greenhouses and gardens. *II*; (5) [3Q; 5 quarter hours].

Professor LLOYD, Mr. VOLZ

*Prerequisite:* Horticulture 1a and 1b or junior standing.

**4. Plant Houses.**—Construction, cost, and maintenance; heating; ventilating. *II*; (4) [2Q; 4 quarter hours].

Professor DORNER

**5. Plant Propagation.**—Grafts; buds; layers; cuttings; seeds. Lectures; laboratory; quizzes. *I*; (5) [W5; 1Q; 5 quarter hours].

Professor DORNER

<sup>1</sup>On leave of absence.

<sup>2</sup>Resigned, November 1, 1918. Military Service.

**[6. Nursery Methods.**—The nursery business; propagation; management; relation to horticulture. Lectures; reference readings. (Trips will be taken to nurseries, the cost not to exceed \$10.00.) *II*; (2). Not given, 1918–19.

*Prerequisite:* Horticulture 5.]

**7. Spraying.**—Materials, appliances, and methods of combating insects and fungous diseases. Lectures; reference readings; laboratory; field work. *II*; (3) [3Q; 4 quarter hours].

Mr. RUTH, Mr. BROCK

*Prerequisite:* Horticulture 1a and 1b or their equivalents; Chemistry 1; Entomology 4.

**[9. Forestry.**—Forest trees; uses; distribution; artificial production; relations of forest and climate; forestry legislation and economy. *II*; (2). Not given, 1918–19.

*Prerequisite:* Botany 1, or its equivalent.]

**10a. Rural Improvement.**—Landscape improvement in the open country and its relation to rural conditions and the farm group. Lectures; reference readings; reports. *I*; (2) [W10a; 1Q; 2 quarter hours].

Miss McADAMS

**10b. Town Improvement.**—The development of the town as an organism and the improvement of small communities, with special reference to street and park planting and the arrangement of the home grounds. Lectures; reference readings; reports; textbook. *II*; (2) [3Q; 2 quarter hours].

Assistant Professor EVANS

**[11. Study of Cultivated Plants.**—The relationship and classification of economic and ornamental plants of the temperate zone; identification of species; examination of living plants and herbarium specimens. Lectures; assigned readings. *I*; (2). Not given, 1918–19.

Professor BLAIR, Professor CRANDALL

*Prerequisite:* Botany 4a.]

**15a. Principles of Plant Growing.**—Preparation of soils for greenhouse crops; fertilizers; potting and shifting plants; watering. Lectures; practical greenhouse work. *II*; (5) [3Q; 5 quarter hours].

Professor DORNER

*Prerequisite:* Horticulture 5; Botany 1.

**15b. Commercial Crops.**—Greenhouse plants and cut flowers for wholesale and retail markets; care and marketing of the crops. Lectures; greenhouse work. *I*; (5) [W15b; 1Q; 5 quarter hours].

Professor DORNER

*Prerequisite:* Horticulture 15a.

**15c. Commercial Crops.**—(A continuation of Horticulture 15b.) *II*; (5) [2Q; 5 quarter hours].

Professor DORNER

*Prerequisite:* Horticulture 15b.

**19a. Amateur Floriculture.**—Window gardening; growing of flowers on the home grounds; containers; potting soils; fertilizers; preparation and planting of flower beds; propagation and culture of plants for window and garden. *I*; (3) [W19, 1Q, 3 quarter hours; 9b, 2Q, 3 quarter hours].

Professor DORNER

**21a. Landscape Design (Sophomore Course).**—Simple composition as applied to landscape design; types of drafting and presentation used in office practise. Lectures; reference readings; 12 hours' drafting per week. *I*; (4) [W21a; 1Q; 4 quarter hours].

Miss McADAMS

*Prerequisite:* Architecture 32.

**21b. Landscape Design (Sophomore Course).**—Small private estates and gardens on city and suburban developments. Lectures; reference readings; 12 hours' drafting per week. *II*; (4) [2Q; 4 quarter hours].

Miss McADAMS

*Prerequisite:* Horticulture 21a.

**21c. Landscape Design (Sophomore Course).**—(A continuation of Horticulture 21b.) [3Q; 4 quarter hours].

Miss McADAMS

*Prerequisite:* Horticulture 21b.



**23a. Landscape Design (Junior Course).**—Landscape design as applied to country estates, extensive garden planning, city parks, playgrounds, and the grounds of public institutions. Lectures; assigned readings; reports; field trips; 12 hours' drafting per week. *I*; (4) [W23a; 1Q; 4 quarter hours]. Mr. HILL

*Prerequisite:* Horticulture 21b.

**23b. Landscape Design (Junior Course).**—(A continuation of Horticulture 23a.) *II*; (4) [2Q; 4 quarter hours]. Mr. HILL

*Prerequisite:* Horticulture 23a.

**23c. Landscape Design (Junior Course).**—(A continuation of Horticulture 23b.) [3Q; 4 quarter hours]. Mr. HILL

*Prerequisite:* Horticulture 23b.

**24a. Trees and Shrubs.**—Identification and characteristics of hardy plant material used in landscape gardening. Lectures; reference readings; field trips. *II*; (3) [3Q; 3 quarter hours]. Mr. HILL, Miss McADAMS

*Prerequisite:* Botany 1.

**24b. Trees and Shrubs.**—(A continuation of Horticulture 24a.) Lectures; reference readings; field trips. *I*; (3) [2Q; 3 quarter hours]. Mr. HILL, Miss McADAMS

*Prerequisite:* Horticulture 24a.

**25a. Advanced Landscape Design (Senior Course).**—Landscape design as applied to large landscape problems; educational groups, rural parks, golf courses, cemeteries, etc. Lectures; assigned readings; field trips; 15 hours' drafting per week. *I*; (5) [W25a; 1Q; 5 quarter hours]. Assistant Professor EVANS

*Prerequisite:* Horticulture 23b.

**25b. Advanced Landscape Design (Senior Course).**—(A continuation of Horticulture 25a.) *II*; (5) [2Q; 5 quarter hours]. Mr. HILL

*Prerequisite:* Horticulture 25a.

**25c. Advanced Landscape Design (Senior Course).**—(A continuation of Horticulture 25b.) [3Q; 5 quarter hours]. Assistant Professor EVANS

*Prerequisite:* Horticulture 25b.

**26a. Planting Design (First Course).**—The planting of private estates and gardens; problems in planting. Readings; occasional field trips; conferences; 6 hours' drafting, 1 lecture per week. *II*; (3) [3Q; 3 quarter hours]. Assistant Professor EVANS

*Prerequisite:* Horticulture 23a, 24b.

**26b. Planting Design (Second Course).**—The planting of public properties; parks, golf courses, cemeteries. Conferences; 6 hours' drafting, 1 lecture per week. *I*; (3). [W26b; 1Q; 3 quarter hours]. Assistant Professor EVANS

*Prerequisite:* Horticulture 26a.

**26c. Planting Design (Third Course).**—(A continuation of Horticulture 26b.) In this course special attention is given to the planting of perennials. [2Q; 3 quarter hours]. Assistant Professor EVANS

*Prerequisite:* Horticulture 26b.

**27a. Landscape Construction.**—The preparation of construction drawings such as grading plans, working drawings, specifications, and reports. *I*; (3) [W27a; 1Q; 3 quarter hours]. Mr. HILL

*Prerequisite:* Civil Engineering 32.

**27b. Landscape Construction.**—(A continuation of Horticulture 27a.) *II*; (3) [2Q; 3 quarter hours]. Mr. HILL

*Prerequisite:* Horticulture 27a.

**27c. Landscape Construction.**—(A continuation of Horticulture 27b.) [3Q; 3 quarter hours]. Mr. HILL

*Prerequisite:* Horticulture 27b.

**28. Exotics.**—Decorative plants used in landscape gardening. Assigned readings; reports; planting plans; field trips; 1 lecture per week. II; (1) [3Q; 1 quarter hour]. Assistant Professor EVANS

*Prerequisite:* Horticulture 23b, 24b.

**29a. Garden Design.**—The garden in its relation to the house; architectural harmony, utilization, topographic conditions; planting for architectural or horticultural emphasis. 8 hours' drafting, 1 lecture per week. I; (3) [2Q; 3 quarter hours]. Mrs. JOHNSON

*Prerequisite:* Architecture 32.

**29b. Garden Design.**—The designing of period gardens and their relation to garden design. 8 hours' drafting, 1 lecture per week. II; (3) [3Q; 3 quarter hours]. Mrs. JOHNSON

*Prerequisite:* Horticulture 23a or Architecture 33.

**30. Decorative and Bedding Plants.**—Tropical and sub-tropical plants used in decorative work in the conservatory; tender plants used in out-door bedding. Lectures; practical greenhouse work. II; (5) [2Q; 5 quarter hours]. Professor DORNER

*Prerequisite:* Horticulture 15a.

**31. Garden Flowers.**—The propagation and growing of annuals, herbaceous perennials, bulbs, and shrubs for cut flowers and ornamental plantings. II; (3) [3Q; 3 quarter hours]. Professor DORNER

*Prerequisite:* Horticulture 5; Botany 1.

**[34. Vegetables Under Glass.**—Types of greenhouses for vegetable forcing; soils; fertilizers; treatment of insects and diseases; management problems; marketing; detailed study of the principal forcing crops. Lectures; reference readings; practical laboratory work. I; (3). Not given, 1918-19. Professor LLOYD, Mr. BROWN

*Prerequisite:* Horticulture 3, 15a.]

**[35. Private Conservatory Work.**—Types of plants for large conservatories; arrangement; care. II; (3). Not given, 1918-19. Professor DORNER

*Prerequisite:* Horticulture 15a, 4.]

**36. History of Landscape Gardening.**—Lectures; reference readings; library sketches; reports. II; (2) [2Q, 3Q; 2 quarter hours]. Assistant Professor EVANS, Miss McADAMS

**37a. Civic Design.**—Town remodeling; remedial problems in town planning. Lectures; field trips; reference readings; reports; drafting. I; (3) [W37a; 1Q; 2 quarter hours]. Assistant Professor EVANS

*Prerequisite:* Senior standing in Landscape and permission of instructor.

**37b. Civic Design.**—Town extension; preventive and preservative aspects of town planning. Lectures; reference readings; drafting; text-book. II; (3) [2Q, 3Q; 2 quarter hours]. Assistant Professor EVANS

*Prerequisite:* Horticulture 37a.

**38a-38b. Office Practise in Landscape Gardening.**—Actual practise in the carrying out of landscape plans in the field. Legislation authorizing and promoting the ends of city planning. Contracts and specifications. Lectures; reference readings; office work; text-book; reports. I, II; (2) [3Q; 1 quarter hour]. Assistant Professor EVANS, Mr. HILL

*Prerequisite:* Horticulture 27b, 23b, 37a, and 37b.

**39a-39b. Special Lectures.**—Lectures by members of the faculty and invited lecturers, on the working out of problems in landscape gardening. (Certain inspection trips required; expense about \$2.00. Professional students are required to register in this course each semester of each year.) One lecture a week with written reports. *I, II*; (1) [1Q, 2Q, 3Q; 1 quarter hour].

Assistant Professor EVANS, Mr. HILL, Miss McADAMS, and others

*Prerequisite:* Permission of the instructor in charge.

**[40a. Trees and Shrubs (Advanced Course).]**—Use of plant material in landscape gardening; pencil and wash drawing. Assigned readings; drafting. *I*; (3). Not given, 1918-19.

*Prerequisite:* Horticulture 10a; Architecture 32.]

**[40b. Trees and Shrubs (Advanced Course).]**—Landscape forestry as applied to private estates, parks, and city planting. *II*; (3). Not given, 1918-19.

*Prerequisite:* Horticulture 24b.]

**42. Landscape Design (Elementary Course for Non-professional Students).**—Planning and planting home grounds, and other minor problems. Lectures; reference readings; reports; 6 hours' drafting per week. *II*; (3) [3Q; 3 quarter hours].

Assistant Professor EVANS, Mr. HILL

**47. Fruit Growing.**—The place of fruit in the diet of civilians and soldiers. Locations suitable to fruit production; planting; cultivating; pruning; spraying; general care of fruit plantations. Harvesting and preparing fruit for shipment. Storage and preservation of fruit for winter use. By-products. Text-book and laboratory work. [W47; 1Q, 2Q, 3Q; 4 quarter hours].

Mr. COLBY

**48. War Gardening.**—The place of vegetables in a war-time diet; growing vegetables for the home table; community gardening; vegetable growing for army camps in America and overseas. Hotbeds and cold frames; planting and transplanting; control of insects and diseases; cool season and warm season crops; tillage; fertilizing; harvesting; storing. Text-book and laboratory work. [W48; 1Q, 2Q, 3Q; 4 quarter hours].

Mr. BROWN, Mr. SOTOLA, Mr. VOLZ

### Courses for Advanced Undergraduates and Graduates

**[8. Orcharding.**—Pomaceous, drupaceous, and nut fruits; management of large commercial orchards; harvesting; grading; packing; storing; marketing. *I*; (5). Not given, 1918-19.

Professor PICKETT

*Prerequisite:* Junior standing.]

**[12. Evolution of Horticultural Plants.**—History, botanical classification, and geographical distribution of cultivated plants; modification under culture; theoretical causes and observed factors that influence variation, particularly food supply, climate, and cross-fertilization. *I*; (3). Not given, 1918-19.

Professor CRANDALL

*Prerequisite:* Two years of university work; Horticulture 8; Botany 4a.]

**[17. Commercial Orcharding.**—(A continuation of Horticulture 8.) Production and business methods in large orchards; reference readings; seminar. (A limited number of trips will be taken, cost not to exceed \$10.00. For students specializing in pomology.) *II*; (5). Not given, 1918-19.

Assistant Professor BAILEY

*Prerequisite:* Horticulture 8 or its equivalent.]

**18. Experimental Horticulture.**—Methods and difficulties; planning experiments; recording and interpreting results. (For advanced students preparing for experiment station work.) *II*; (5) [3Q; 5 quarter hours].

Professor BLAIR, Professor PICKETT

*Prerequisite:* Twenty hours' work in horticulture.

**22a-22b. Investigation and Thesis.**—Special training in the investigation of horticultural problems. *I, II*; (5-10).<sup>1</sup>

*Prerequisite:* Senior standing; permission of the head of the department.

**32a. Floral Decoration.**—Cut flowers and plants in decorative work; arrangement of flowers in baskets, designs, and bouquets; table decoration; house decoration. (For floricultural students.) *I*; (3) [W32a; 1Q; 3 quarter hours]. Professor DORNER

*Prerequisite:* Junior standing.

**32b. Floral Decoration.**—(A continuation of Horticulture 32a.) *II*; (3) [2Q; 3 quarter hours]. Professor DORNER

*Prerequisite:* Horticulture 32a.

**32c. Floral Decoration.**—(A continuation of Horticulture 32b.) [3Q; 3 quarter hours]. Professor DORNER

*Prerequisite:* Horticulture 32b.

**[33. Systematic Pomology.**—Description, nomenclature, and classification of native and sub-tropical fruits; critical descriptions and identification with special reference to relationships and classification of varieties. Training is given in judging and displaying fruits. (For students specializing in pomology.) *I*; (2). Not given, 1918-19.

Professor CRANDALL

*Prerequisite:* Junior standing.]

**43. Greenhouse Fertilizers.**—Soils and fertilizers; plant food materials and the water requirements of greenhouse crops. Lectures; seminar. *I*; (3) [2Q; 3 quarter hours].

Dr. LEHENBAUER

*Prerequisite:* Botany 27a; Agronomy 9; Horticulture 3 or 15a; Chemistry 13a.

**44. Pomology Seminar.**—Assigned topics; review, of books, technical journals and other publications. (For seniors and graduates specializing in pomology.) *I* or *II*; (½) [2Q, 3Q; ½ quarter hour].

Professor PICKETT

*Prerequisite:* Senior standing.

**45. Plant Nutrition.**—The food of plants; growth of greenhouse plants in relation to temperature, light, humidity, and carbon dioxide content of the air. Lectures; assigned readings; seminar. *II*; (3) [3Q; 3 quarter hours].

Dr. LEHENBAUER

*Prerequisite:* Botany 27a; Agronomy 9; Horticulture 3 or 15a; Chemistry 13a.

**[46. Marketing Horticultural Products.**—A study of the fundamental principles involved in the successful marketing of fruits and vegetables. (For seniors and graduates specializing in horticulture.) *I*; (2). Not given, 1918-19.

Professor LLOYD

*Prerequisite:* Senior standing.]

### Courses for Graduates

At least two years of collegiate work in horticulture and allied subjects and specific preparation for the chosen topics are required for entrance on major work in this department.

**103. Olericulture.**—Horticultural relationships, origins, breeding, fertilizing, cultural requirements, and improvement of vegetables. Conferences. *I, II*; (1-2).

Professor LLOYD

<sup>1</sup>In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which *he* intends to take the course, e.g., not 2-5, but 2, or 3, or 4, or 5.

**108. Pomology.**—Special problems in the relationship, adaptation, improvement, propagation, cultivation, pruning, protection, preservation, or marketing of small fruits and orchard fruits. Conferences. *I, II; (1-2).*

Professor BLAIR, Professor CRANDALL, Professor LLOYD, Professor PICKETT

**115. Floriculture.**—The horticultural status of flowering plants, or special problems in the culture of greenhouse plants. *I, II; (1-2).* Professor DORNER

**[116. Chemistry of Plant Nutrition.**—Research course following Horticulture 45. Lectures; seminar; laboratory. *I, II; (¾-1¼).* Not given, 1918-19.]

## LANDSCAPE GARDENING

(See HORTICULTURE.)

## LATIN

(See CLASSICS.)

## LAW

HENRY WINTHROP BALLANTINE, A.B., LL.B., *Professor and Dean*

OLIVER ALBERT HARKER, A.M., LL.D., *Professor*

FREDERICK GREEN, A.M., LL.B., *Professor*

EDWARD HARRIS DECKER,<sup>1</sup> A.B., LL.B., *Professor*

JOHN NORTON POMEROY,<sup>2</sup> A.M., LL.B., *Professor*

WILLIAM GREENE HALE, B.S., LL.B., *Professor*

WILLIAM EVERETT BRITTON, A.M., J.D., *Instructor in Business Law*

(For details as to courses, see special program of the College of Law to be issued in September, 1919.)

### First Year Courses

**1a-1b. Contracts.**—Keener: *Cases on Contracts*; and Ballantine: *Problems in Law of Contracts*. *I, (4); II, (3)* [W1a-1b; 1Q, 2Q, 3Q; 3 quarter hours].

Professor DECKER, Professor BALLANTINE

**2a-2b. Torts.**—Ames and Smith: *Cases on Torts*. *I, (3); II, (2)* [1Q, 2Q, 3Q; 3 quarter hours].

Professor HALE

**5. Criminal Law.**—Beale: *Cases on Criminal Law*. *I; (3)* [2Q; 3 quarter hours].

Professor BALLANTINE, Professor HALE

**6. Personal Property.**—Warren: *Cases on Property*. *I; (3)* [2Q; 3 quarter hours].

Professor GREEN

**7. Domestic Relations.**—Kales: *Cases on Persons* (2d edition). *II; (2)* [3Q; 3 quarter hours].

Professor GREEN

**10. Real Property.**—Aigler: *Cases on Property* (2d edition). *II; (3)* [3Q; 4 quarter hours].

Professor BALLANTINE

**11. Agency.**—Wambaugh: *Cases on Agency*. *II; (3)* [2Q; 3 quarter hours].

Professor GREEN

**37a-37b. Introduction to Law and Brief Making.**—*II; (2)* [1Q, 3 quarter hours; 3Q, 2 quarter hours].

Professor DECKER

### Second and Third Year Courses

**4. Common Law Pleading.**—Sunderland: *Cases on Common Law Pleading*. *I; (3)* [W4; 1Q, 2Q; 2 quarter hours].

Professor BALLANTINE

<sup>1</sup> On leave of absence second and third quarters.

<sup>2</sup> On leave of absence first and second quarters.

- 4a. Illinois Procedure.—I; (2) [2Q, 3 quarter hours; 3Q, 2 quarter hours].  
Professor HARKER
8. Evidence.—Thayer: *Cases on Evidence* (2d edition). II; (4) [2Q, 3Q; 3 quarter hours].  
Professor HALE
9. Sales.—Williston: *Cases on Sales* (2d edition). I; (3) [W9; 1Q; 4 quarter hours].  
Professor HALE
- 12a-12b. Equity.—Ames: *Cases on Equity*. II; (5) [3Q; 5 quarter hours].  
Professor POMEROY
14. Carriers.—Green: *Cases on Carriers*. II; (2) [3Q; 2 quarter hours].  
Professor GREEN
15. Bills and Notes.—Smith and Moore: *Cases on Bills and Notes*. I; (3) [2Q; 4 quarter hours].  
Dr. BRITTON
17. Private Corporations.—Canfield and Wormser: *Cases on Private Corporations* I, II; (2) [W17; 1Q, 2Q; 3 quarter hours].  
Professor GREEN
18. Wills.—Warren: *Cases on Wills*. II; (2) [3Q; 3 quarter hours].  
Professor POMEROY
20. Equity Pleading.—Selected Illinois and Federal Cases on Equity Pleading. II; (2) [W20; 1Q; 3 quarter hours].  
Professor HARKER
23. Mortgages.—Wyman: *Cases on Mortgages*. I; (2) [W23; 1Q; 3 quarter hours].  
Professor HARKER
30. Public International Law.—Lawrence: *Principles of International Law*. Evans: *Cases on International Law*. I; (3) [W30; 1Q, 2Q; 3 quarter hours].  
Professor GARNER
26. Legal Ethics.—Costigan: *Cases on Legal Ethics*. I; (1).  
Professor HARKER
29. Office Practise.—Selected abstracts and problems. II; (2).
31. Conflict of Laws.—Beale: *Shorter Selection of Cases on Conflict of Laws*. I; (3).
- 36a-36b. Practise Court.—I; (1).  
Professor HARKER

#### Non-Professional Courses

40. Military Law.—I; (1) [W40; 1Q; 2 quarter hours].  
Professor BALLANTINE
39. Law of the Press.—II; (2).  
Professor HALE
41. Jurisprudence.—II; (2).  
Professor BALLANTINE

#### LIBRARY SCIENCE

PHINEAS LAWRENCE WINDSOR, Ph.B., *Director*  
 FRANCES SIMPSON, M.L., B.L.S., *Assistant Director, Assistant Professor*  
 FLORENCE RISING CURTIS, A.M., B.L.S., *Assistant Professor*  
 JOHN SIMEON CLEAVINGER, A.B., B.L.S., *Associate*  
 ETHEL BOND, A.B., B.L.S., *Instructor*  
 ANNE MORRIS BOYD, A.B., B.L.S., *Instructor*  
 EVA CLOUD TAYLOR, *Special Lecturer*  
 CLARA ELIZABETH HOWARD, B.L.S., *Special Lecturer*  
 FRANCIS KEESE WYNKOOP DRURY, A.M., B.L.S., *Lecturer, Order*  
 MARGARET HUTCHINS, A.B., B.L.S., *Lecturer, General Reference*  
 ALICE SARAH JOHNSON, A.B., B.L.S., *Lecturer, General Reference*  
 MARGARET STUART WILLIAMS, A.B., B.L.S., *Lecturer, General Reference*  
 JOSIE BATCHELLER HOUGHENS, A.M., B.L.S., *Lecturer*  
 ANGELINE MCNEILL, A.B., B.L.S., *Reviser*

## Course for Freshmen and Sophomores

**12. General Reference.**—Classification and arrangement of books in the university library; card catalogs; reference books. (Intended for freshmen and sophomores in the University, not for students in Library School.) *I* or *II*; (2).

Miss HUTCHINS, Miss BOYD, Miss JOHNSON, Miss WILLIAMS

## Courses for Library School Juniors

**2a-2b. Reference.**—Methods of bibliographical research; reference books; practical work in the reference department of the university library. *I, II*; (3) [W2a-2b-2c; 1Q, 2Q, 3Q; 9 quarter hours].

Assistant Professor SIMPSON

**3a-3b. Selection of Books.**—Selection for libraries of different types; standard lists, critical periodicals, and other aids; practise in writing book annotations. *I, II*; (2) [W3a-3b-3c; 1Q, 2Q, 3Q; 6 quarter hours].

Miss BOYD

**16. Order, Accession, and Shelf.**—Order department records and routine; book-buying; publishers and discounts; serials and continuations; gifts; exchanges; duplicates; the accession book and its substitutes; the shelf list and its uses; care of pamphlets, clippings, and maps. *I*; (2) [W16; 1Q; 3 quarter hours].

Miss CURTIS

**17. Classification.**—Book classification; Dewey Decimal Classification; Cutter Expansion Classification; book numbers. *I*; (3) [W51a-51b; 1Q, 2Q; 5 quarter hours].

Miss BOND

**18. Cataloging.**—Dictionary cataloging; subject headings; classed cataloging. *I*; (3) [W50a-50b; 1Q, 2Q; 5 quarter hours].

Miss BOND

**19. Trade Bibliography.**—Books and periodicals used as tools of the book trade of America, England, Germany, and France. *II*; (1) [3Q; 1 quarter hour].

Miss BOND

**20. Loan Department.**—Records connected with the loan of books; representative loan systems; rules, regulations, and practises. *I*; (1) [W20; 1Q; 1 quarter hour].

Miss JUTTON

**21. Printing, Binding, and Indexing.**—Printing for libraries; preparing copy and reading proof. Materials and methods of bookbinding for libraries; preparing books for the bindery and making necessary records. Indexes; form of citation; choice and arrangement of headings. *II*; (2) [W52-53; 2Q, 3Q; 4 quarter hours].

Director WINDSOR, Miss CURTIS

**22. Library Extension.**—Organization and administration of public libraries, special libraries, state library agencies, library training, library periodicals; field trip (see p. 177) *II*; (3) [2Q, 3Q; 6 quarter hours].

Miss CURTIS

**23a-23b. Library Administration and Current Library Literature.**—Current library periodicals, bulletins, reports, catalogs, and reading lists; copyright; small libraries; reading rooms and small library buildings; accounts and business forms. (This course includes an inspection trip to libraries and book-publishing firms in selected cities, requiring about one week and costing approximately twenty dollars.) *I, II*; (1) [W23a-23c; 1Q, 3Q; 2 quarter hours].

Miss BOYD, Mr. CLEAVINGER

**30. Practise.**—Work in the various departments of the university library. To be taken with Library 2, 16, 17, 18, 19, 20, and 21. *II*; (3) [2Q, 3Q; 5 quarter hours].

Miss HOUCHENS

## Courses for Library School Juniors and Seniors

**7. History of Libraries.**—The foundation, development, and resources of the leading libraries of Europe and the United States. *II*; (2). Given in alternate years. [3Q; 3 quarter hours].

Miss SIMPSON

[9. **History of Books and Printing.**—History of the early forms of books: the invention and spread of printing; book illustration; bookbinding. *II*; (2). Given in alternate years. Not given, 1918–19.]

### Courses for Library School Seniors

8. **Advanced Reference.**—Transactions of learned societies; special periodicals and government publications; indexes and other works of value to a large reference department. *I*; (2) [W8a-8b; 1Q, 2Q; 4 quarter hours]. Assistant Professor SIMPSON

*Prerequisite:* Library 2a-2b.

13a-42. **Public Documents.**—First semester: United States documents; reference problems. Second semester: American state and municipal documents; publications of foreign governments. *I, II*; (2, 3) [W61a-61b-62; 1Q, 2Q, 3Q; 9 quarter hours].

Miss CURTIS

15a-15b. **Seminar in Library Economy.**—Special problems; library economy publications. *I, II*; (2) [W15a-15b-15c; 1Q, 2Q, 3Q; 6 quarter hours].

Assistant Professor SIMPSON and others

24a-24b. **Selection of Books.**—English translations of representative works of French, German, Spanish, Italian, and Russian novelists of the 19th century; examination of newly published books. *I, II*; (2) [W24a-24b-24c; 1Q, 2Q, 3Q; 6 quarter hours].

Miss HOWARD, Mr. DRURY, Mrs. TAYLOR

26a-26b. **Library Administration.**—Advanced order work; library organization; architecture; legislative and municipal reference work; work with children; special topics. (This course includes an inspection trip to libraries and book-publishing firms in selected cities, requiring about one week and costing approximately twenty dollars, and also one month of field work in a designated library, costing approximately forty dollars.) *I, II*; (3) [W26a-26b-26c; 1Q, 2Q, 3Q; 9 quarter hours].

Assistant Professor SIMPSON, Mr. DRURY, Mrs. TAYLOR, Miss HOWARD

27. **Bibliographical Institutions.**—Organization and work of bibliographical societies and institutions of America and Europe; cooperative bibliographical undertakings; international bibliography. *I*; (1) [W27; 1Q; 1 quarter hour].

Miss PATTON

28. **Practise.**—Advanced practise in certain departments of the university library. *II*; (1 to 4)<sup>1</sup> [3Q; 1 to 4 quarter hours].

29. **Advanced Classification and Cataloging.**—Systems of book classification; rules for cataloging books. *II*; (2) [3Q; 3 quarter hours].

Miss BOND

*Prerequisite:* Library 17, 18.

40a-40b. **Practise.**—A continuation of Library 30 supplemented by one month of work as a member of the staff of an assigned public library. *I, II*; (3) [W40a-40b-40c; 1Q, 2Q, 3Q; 9 quarter hours].

Miss HOUCHEMS

41a-41b. **Subject Bibliography.**—Selection of books in special subjects; literature and bibliography. Lectures by professors in the departments of the University. *I, II*; (1) [W41a-41c; 1Q, 3Q; 2 quarter hours].

Director WINDSOR and others

### Summer Session Courses

NOTE.—The courses indicated covered six weeks and received no credit toward the B.L.S. degree. Only people employed in libraries were admitted.

S 1. **Classification; Cataloging; Book Numbers.**—*Five times a week.*

<sup>1</sup>In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which *he* intends to take the course; e.g., *not* 1-4, but 1, or 2, or 3, or 4.



- S 2. **Reference Work.**—Reference books suited to the small public library. *Twice a week.*
- S 3. **Selection of Books.**—Book selection and subject bibliography. *Twice a week.*
- S 4. **Work with Children.**—Selection and discussion of children's books; administration of children's libraries; classification and cataloging. *Twice a week.*
- S 5. **Order and Accession; Loan Department; Binding and Repair.**—*Twice a week.*
- S 6. **Library Administration and Extension.**—*Twice a week.*

### MATHEMATICS

EDGAR JEROME TOWNSEND, Ph.D., LL.D., *Professor*  
 GEORGE ABRAM MILLER, Ph.D., *Professor*  
 JAMES BYRNIE SHAW, D.Sc., *Professor*  
 ARTHUR BYRON COBLE, Ph. D., *Professor*  
 ROBERT DANIEL CARMICHAEL, Ph.D., *Associate Professor*  
 ARNOLD EMCH, Ph.D., *Assistant Professor*  
 ARTHUR ROBERT CRATHORNE, Ph.D., *Assistant Professor*  
 GUSTAF ERIC WAHLIN, Ph.D., *Assistant Professor*  
 AUBREY JOHN KEMPNER, Ph.D., *Assistant Professor*  
 ERNEST BARNES LYTLE, Ph.D., *Associate*  
 HENRY BLUMBERG, Ph.D., *Associate*  
 JAMES ELIJAH McATEE, Ph.D.,<sup>1</sup> *Instructor*  
 RAYMOND FRANKLIN BORDEN, Ph.D., *Instructor*  
 JOSEPHINE BURNS GLASGOW, Ph.D., *Instructor*  
 ELIZABETH BENNETT GRENNAN, Ph.D., *Instructor*  
 FRANK WALKER REED, Ph.D.,<sup>2</sup> *Instructor*  
 ROSCOE WOODS, A.M., *Assistant*  
 LEONARD LEO STEIMLEY, A.M., *Assistant*  
 JOSEPH BERNHARDT ROSENBAACH, A.B., *Assistant*  
 BERNHARD PAUL REINSCH, A.B.,<sup>2</sup> *Assistant*  
 WILLIAM EDMUND EDINGTON, A.B.,<sup>2</sup> *Assistant*  
 LELAND EDWARD YEAGER, A.B.,<sup>3</sup> *Assistant*

#### *Cooperating:*

FRANK SMITH,<sup>4</sup> A.M., *Professor of Zoology*  
 JOEL STEBBINS,<sup>4</sup> Ph.D., *Professor of Astronomy*  
 MORGAN BROOKS,<sup>4</sup> Ph.B., M.E., *Professor of Electrical Engineering*  
 HERBERT FISHER MOORE,<sup>4</sup> M.M.E., *Research Professor of Engineering Materials*  
 JOHN A DETLEFSEN,<sup>4</sup> Sc.D., *Associate Professor of Genetics*  
 FRED B SEELY,<sup>4</sup> M.S., *Assistant Professor of Theoretical and Applied Mechanics*  
 NEWTON EDWARD ENSIGN,<sup>4</sup> A.B., B.S., *Associate in Theoretical and Applied Mechanics*  
 HAROLD HOUGHTON DUNN,<sup>4</sup> M.S., *Associate in Railway Engineering*  
 FORREST ADISON FISHER,<sup>4</sup> B.S., *Associate in Agronomy*  
 WILLIAM J PUTNAM,<sup>4</sup> B.S., *Instructor in Theoretical and Applied Mechanics*  
 HARALD MALCOLM WESTERGAARD,<sup>4</sup> Ph.D., *Instructor in Theoretical and Applied Mechanics*

**Major:** 20 hours made up from any undergraduate courses offered by the department, except Mathematics 2, 4, and 8, and including Mathematics 7 and 9.

**Minors:** 20 hours selected from chemistry, physics, theoretical and applied mechanics, astronomy, surveying.

<sup>1</sup> Died, December 1, 1918.

<sup>2</sup> From January 1, 1919.

<sup>3</sup> Resigned, January 1, 1919.

<sup>4</sup> First quarter.

## Courses for Undergraduates

2. College Algebra.—*I* or *II*; (3) [2Q, 3Q; 4 quarter hours].

Professor TOWNSEND, Associate Professor CARMICHAEL, Assistant Professor KEMPNER, Assistant Professor WAHLIN, Dr. LYTLE, Dr. BLUMBERG, Dr. BORDEN, Dr. GLASGOW, Dr. GRENNAN, Dr. REED, Mr. WOODS, Mr. STEIMLEY, Mr. REINSCH, Mr. EDINGTON, Mr. ROSENBAUGH

*Prerequisite*: Entrance algebra,  $1\frac{1}{2}$  units; plane geometry, 1 unit.

3. Algebra.—(For students presenting only one unit of entrance algebra.) The more advanced topics of elementary algebra in addition to the work of college algebra (Math. 2). *I*; (5) [2Q, 3Q; 5 quarter hours].

Professor SHAW, Assistant Professor KEMPNER, Mr. WOODS

*Prerequisite*: Entrance algebra, 1 unit; plane geometry, 1 unit.

4. Plane Trigonometry.—*I* or *II*; (2) [W4a; 1Q, 2Q; 3 quarter hours. W4b; 1Q; 4 quarter hours].

Professor TOWNSEND, Professor MILLER, Professor SHAW, Professor COBLE, Associate Professor CARMICHAEL, Assistant Professor EMCH, Assistant Professor CRATHORNE, Assistant Professor KEMPNER, Assistant Professor WAHLIN, Dr. LYTLE, Dr. BLUMBERG, Dr. BORDEN, Dr. GLASGOW, Dr. GRENNAN, Dr. MCATEE, Mr. STEIMLEY, Mr. ROSENBAUGH, Mr. WOODS, Mr. YEAGER

*Prerequisite*: Entrance algebra,  $1\frac{1}{2}$  units; plane geometry, 1 unit.

6. Analytic Geometry.—Plane and solid analytic geometry. *II*; (5) [3Q; 5 quarter hours].

Professor MILLER, Professor SHAW, Assistant Professor CRATHORNE, Assistant Professor WAHLIN, Assistant Professor KEMPNER, Dr. LYTLE, Dr. BORDEN, Mr. WOODS, Mr. STEIMLEY, Mr. EDINGTON, Mr. ROSENBAUGH

*Prerequisite*: Mathematics 2, 4.

7-9. Differential and Integral Calculus.—The principles developed and applied to functions of one and of several variables. *I*, (5); *II*, (3) [W7, 1Q, 5 quarter hours; 7a, 2Q, 4 quarter hours; 9, 3Q, 3 quarter hours].

Professor MILLER, Professor COBLE, Associate Professor CARMICHAEL, Assistant Professor WAHLIN, Assistant Professor EMCH, Assistant Professor CRATHORNE, Dr. BLUMBERG, Dr. MCATEE, Dr. REED

NOTE.—Two sections of Mathematics 7 are given the second semester.

8. Differential and Integral Calculus.—(For students in chemistry and chemical engineering.) *I*; (5) [W8a; 1Q, 2Q, 3Q; 3 quarter hours].

Assistant Professor KEMPNER, Dr. BORDEN

*Prerequisite*: Mathematics 6.

9a. Differential and Integral Calculus.—(Second course.) The definite (single and multiple) integral; formation of problems; line, surface, and volume integrals; theorem of Stokes and Green; partial differentiation; exact integrals; elements, approximate quadrature and integration of differential equations. *I*; (2) [2Q; 3 quarter hours].

Professor SHAW

*Prerequisite*: Mathematics 7 and 9, or 8.

## Courses for Advanced Undergraduates and Graduates

10. Theory of Equations and Determinants.—Properties of an algebraic equation in one unknown; systems of simultaneous equations; a system of linear equations; determinants. *I*; (3) [W10, 1Q, 3 quarter hours; 2Q, 2 quarter hours].

Professor MILLER

*Prerequisite*: Mathematics 7 and 9, or 8.

**16-17. Differential Equations and Advanced Calculus.**—Ordinary and partial differential equations; special topics of calculus. *I, II; (3) [W16-17; 1Q, 2Q, 3Q; 3 quarter hours].* Professor TOWNSEND

*Prerequisite:* Mathematics 7 and 9, or 8.

**18. Constructive Geometry.**—Space perception; lines, planes, and the simpler surfaces of the second order, studied by parallel and central projection; graphic interpretation of the processes of analytic geometry; analytic discussion of the methods of descriptive geometry. *II; (3) [2Q; 3 quarter hours].* Assistant Professor EMCH

*Prerequisite:* Mathematics 6.

**19. Solid Analytic Geometry.**—Equations of the plane and right line in space; surfaces of the second degree; quadrics; surfaces. *II; (3) [2Q, 2 quarter hours; 3Q, 3 quarter hours].* Professor COBLE

*Prerequisite:* Mathematics 10.

**21. Method of Least Squares.**—Law of probability and error; adjustment of observations; precision of observation; independent and conditional observations. *I; (2) [W21; 1Q; 2 quarter hours].* Professor STEBBINS

*Prerequisite:* Mathematics 7 and 9, or 8.

**[22. The Theory and Use of Mathematical Instruments.**—The mathematical theory underlying such instruments as the harmonic analyser, the integrator, and various forms of the planimeter, together with their practical use and a consideration of the degree of accuracy. Two lectures, one laboratory period a week. *II; (3). Not given, 1918-19.*

Assistant Professor CRATHORNE]

**23. Averages and Mathematics of Investment.**—Meaning, use, and abuse of averages; probability; annuities, insurance, and branches of science; loans and investments; evaluation of investment securities. *II; (3) [3Q; 3 quarter hours].*

Assistant Professor CRATHORNE

*Prerequisite:* Mathematics 2; junior standing.

**[30-31. Actuarial Theory.**—Life contingencies; life tables; monetary tables; valuation of policies to meet statutory requirements; risk; distribution of surplus; annual reports; inheritance taxes; old age pensions; workmen's compensation; investing the funds of an insurance company. *I, II; (3). Not given, 1918-19.* Assistant Professor CRATHORNE]

**32. History of Mathematics.**—The elementary subjects; rise and growth of the higher mathematics, chiefly in the nineteenth century; biography. Lectures; reports on assigned reading. *II; (2) [3Q; 3 quarter hours].* Dr. LYTLE

*Prerequisite:* Eighteen hours of mathematics.

**35. Teachers' Course.**—Secondary algebra and geometry; educational value; position in course; methods of teaching; correlation; American and foreign methods; order and importance of topics; text-books; literature. Lectures; discussions; reports. *I; (2) [2Q; 3 quarter hours].* Dr. LYTLE

*Prerequisite:* Eighteen hours of mathematics.

**[40. Fundamental Concepts of Mathematics.**—The number concept; unity, aggregate, order, and correspondence; irrationals and limits, transcendence of  $e$  and  $n$ ; parallel axiom and non-euclidian geometries; constructions with ruler and compass; function; logic of mathematics. *II; (2). Not given, 1918-19.* Dr. LYTLE

*Prerequisite:* Eighteen hours of mathematics.]

**90-91. Undergraduate Thesis.**—Special training in mathematical investigation for seniors. *I, II; (2) [W90-91; 1Q, 2Q, 3Q; 2 quarter hours].*

Members of the department

*Prerequisite:* Twenty-four hours of college mathematics.

## Courses for Graduates

100. Seminar and Thesis.—*Three times a week; I, II; (1 or 2 units).* [W100; 1Q, 2Q, 3Q; 1 or 2 units]. Professors in department

[101. Functions of Real Variables.—(Introductory course.) Functions of real variables; analysis; assemblages; proofs in differential and integral calculus. *Three times a week; I, II; (1 unit).* Not given, 1918-19. Professor TOWNSEND]

102. Functions of a Complex Variable.—*Three times a week; I, II; (1 unit)* [W102; 1Q, 2Q, 3Q; 1 unit]. Professor TOWNSEND

[105. Calculus of Variations.—Conditions for a maximum or minimum in simple and isoperimetric problems. *Three times a week; I, II; (1 unit).* Not given, 1918-19. Assistant Professor CRATHORNE]

110a. Elliptic Functions.—The processes of analysis on which the theory of elliptic functions depends; singly periodic functions; means of approach to the theory of doubly periodic functions; development of the theory from the point of view of definite integrals, and of Mittag-Leffler's partial fraction expansion. *I; (1 unit).* [W110a; 1Q, 2Q; 1 unit]. Associate Professor CARMICHAEL

*Prerequisite:* Mathematics 102.

110b. Elliptic Functions.—Approach to the theory of doubly periodic functions from the point of view of Weierstrass's product expansion, of  $q$ -difference equations, and of functional equations; applications to geometry, mechanics, and the theory of numbers; periodic functions of two variables. *II; (1 unit)* [3Q; 1 unit]. Assistant Professor CARMICHAEL]

*Prerequisite:* Mathematics 102.

111a. Automorphic Functions.—Geometry in the complex plane. The group-theoretic side of the theory. *Three times a week; I; (1 unit).* Not given, 1918-19. Assistant Professor EMCH]

111b. Automorphic Functions.—Function-theoretic developments and applications of automorphic function. *Three times a week; II; (1 unit).* Not given, 1918-19. Assistant Professor EMCH]

112a. Linear Difference Equations.—Elementary theory of differences; equations with constant coefficients; etc. *Three times a week; I; (1 unit).* Not given, 1918-19. Associate Professor CARMICHAEL]

112b. Linear Difference Equations.—General expansion problems. *Three times a week; II; (1 unit).* Not given, 1918-19. Associate Professor CARMICHAEL]

113. Linear Differential Equations in Real Variables.—General existence theorems; oscillation theorems and pendulum problems; etc. *Three times a week; I; (1 unit).* Not given, 1918-19. Associate Professor CARMICHAEL]

114. Linear Differential Equations in Complex Variables.—General existence theorems, function-theoretic considerations; etc. *Three times a week; II; (1 unit).* Not given, 1918-19. Associate Professor CARMICHAEL]

[122. Modern Algebra.—*Three times a week; I, II; (1 unit).* Not given, 1918-19. Assistant Professor KEMPNER]

124. Theory of Numbers.—*Three times a week; I, II; (1 unit)* [W124; 1Q, 2Q, 3Q; 1 unit]. Assistant Professor WAHLIN

*Prerequisite:* Mathematics 10 and graduate standing.

125. Continuous Groups.—Representation of certain continuous transformation groups by means of ordinary complex numbers. Lie's theory of differential equations, etc. *Three times a week; I; (1 unit)* [W125; 1Q, 2Q; 1 unit]. Professor MILLER

*Prerequisite:* Mathematics 10 and 16.

126. **Finite Groups.**—Substitution groups of low degrees. Sylow's theorem; etc. *Three times a semester; II; (1 unit)* [3Q; 1 unit]. Professor MILLER

*Prerequisite:* Mathematics 10.

127. **Theory of Groups.**—Advanced course. *Three times a week; I, II; (1 unit)*. Not given, 1918–19. Professor MILLER

129. **Theory of Statistics.**—Methods of statistical investigation; application to problems in economics, sociology, and biology. *Three times a week; I, II; (1 unit)* [W129; 1Q, 2Q, 3Q; 1 unit]. Assistant Professor CRATHORNE

130. **Invariants and Higher Plane Curves.**—Applications of the theory of invariants to higher plane curves, etc. *Three times a week; I, II; (1 unit)* [W130; 1Q, 2Q, 3Q; 1 unit]. Professor COBLE

*Prerequisite:* Mathematics 16, 17, 132a, 132b.

131. **Algebraic Surfaces.**—The application of homogenous coordinates and the theory of invariants to geometry of three dimensions; etc. *Three times a week; I, II; (1 unit)*. Not given, 1918–19. Professor COBLE

132a. **Projective Geometry.**—*Three times a week; I; (1 unit)* [W132a; 1Q, 2Q; 1 unit]. Assistant Professor EMCH

*Prerequisite:* Graduate standing in mathematics.

132b. **Projective Geometry.**—*Three times a week; II; (1 unit)* [3Q; 1 unit]. Assistant Professor EMCH

*Prerequisite:* Graduate standing in mathematics.

135. **Differential Geometry.**—Applications of the calculus to the theory of curves and surfaces based primarily in the use of Cartesian coordinates; relation of the theory of surfaces to the theory of invariants of a pair of quadratic differential forms. *Three times a week; I, II; (1 unit)*. Not given, 1918–19. Professor COBLE

141. **Vector Methods.**—The algebras of quaternions, space and analysis, and dyadics; differentials and integrals of space; applications to mechanics, elasticity, hydrodynamics, electrodynamics, and meteorology. *Three times a week; I; (1 unit)*. Not given, 1918–19. Professor SHAW

142. **General Vectors.**—The algebras applicable to space of four dimensions, and  $N$  dimensions; differential and integral operators; applications to relativity problems of kinematics, mechanics, electrodynamics; general dyadics and applications. *Three times a week; II; (1 unit)*. Not given, 1918–19. Professor SHAW

143. **Linear Algebra.**—A general study of the theory of linear associative and non-associative algebras, particular consideration of the types of algebras, and their chief representatives; applications. *Three times a week; I; (1 unit)*. Not given, 1918–19. Professor SHAW

144. **General Algebra.**—The general theory of combinations of elements, with a study of the main types such as associativity, commutativity, and other limitation types; applications to the theory of infinite algebras and the theory of general operators. *Three times a week; II; (1 unit)*. Not given, 1918–19. Professor SHAW

145. **Fundamental Functions.**—The theory of orthogonal and biorthogonal functions and expansions in terms of them, with particular study of several well-known cases; applications to the solution of differential and integral equations. *Three times a week; I; (1 unit)* [W145; 1Q, 2Q; 1 unit]. Professor SHAW

*Prerequisite:* Mathematics 16–17.

146. **Functional Transformations.**—The theory of operators which transform functions into functions, particularly those related to the infinite algebras of orthogonal func-

tions; applications to functions of lines, surfaces, etc., and to integro-differential equations; general infinite vector analysis. *Three times a week; II; (1 unit)* [3Q; 1 unit].

Professor SHAW

*Prerequisite:* Mathematics 145 or 142.

### Summer Session Courses

Beginning with 1917, the department of mathematics offered at least five courses each summer for graduates and advanced undergraduates, and to so vary these courses as to enable advanced students to secure a suitable sequence during four or five successive summer sessions. Three of these five courses are of an intermediate grade, open to advanced undergraduates as well as to graduates, while the other two are primarily for graduate students.

The intermediate courses are for the present to be devoted to the following six subjects: Theory of equations and determinants, advanced calculus, constructive geometry, advanced algebra, differential equations, and advanced analytic geometry. It is proposed to give a course on each of these subjects every two years.

### Courses for Undergraduates

S 2. College Algebra.—(3).

Mr. STEIMLEY

*Prerequisite:* Two and one-half units entrance mechanics.

S 4. Plane Trigonometry.—(2).

Mr. STEIMLEY

*Prerequisite:* Two and one-half units entrance mathematics.

S 6. Analytical Geometry.—Introductory plane and solid analytic geometry. (5).

Mr. RICHARDSON

*Prerequisite:* Mathematics 2 and 4.

S 7. Differential Calculus.—Course for beginners. (5).

Dr. MCATEE

*Prerequisite:* Mathematics 6.

S 9. Integral Calculus.—(3).

Dr. KEMPNER

*Prerequisite:* Mathematics 7.

### Courses for Advanced Undergraduates and Graduates

^ S 12. Advanced Algebra.—Selected topics from higher algebra, such as permutations, combinations, probabilities, determinants with applications, graphical methods, continued fractions, fundamental theorem of algebra. (2½).

Dr. KEMPNER

*Prerequisite:* Mathematics 7-9.

^ S 16. Differential Equations.—Total and partial differential equations. Applications to geometry and physics. Special study of linear equations, and in particular certain forms that appear frequently in physics. (3).

Associate Professor SHAW

*Prerequisite:* Mathematics 7-9.

^ S 19. Solid Analytic Geometry.—Equations of the plane and right line in space, classification of quadrics. Special properties of quadrics. (2½).

Assistant Professor SISAM

*Prerequisite:* Mathematics 10.

### Courses for Graduates Only

^ S 135. Differential Geometry.—Applications of calculus to the theory of space curves and surfaces; loci associated with a given curve or surface; relation of the theory of surfaces to the invariants of a pair of quadratic forms. (1 unit). Assistant Professor SISAM

*Prerequisite:* Mathematics 16 or registration in 16.

^ S 141. Vector Methods.—An application of the algebras of quaternions, space analysis, and dyadics; differentials and integrals in space; applications to geometry, mechanics, physics, and meteorology. (1 unit).

Associate Professor SHAW

*Prerequisite:* Mathematics 16-17.

# MECHANICAL ENGINEERING

CHARLES RUSS RICHARDS, M.E., M.M.E., *Acting Professor and Head of Department*  
 GEORGE ALFRED GOODENOUGH, M.E., *Professor, Thermodynamics*  
 BRUCE WILLET BENEDICT, B.S., *Director, Shop Laboratories*  
 OSCAR ADOLPH LEUTWILER, M.E., *Professor, Machine Design*  
 ARTHUR CUTTS WILLARD, B.S., *Professor, Heating and Ventilation*  
 ALONZO PLUMSTED KRATZ, M.S., *Research Assistant Professor, Engineering Experiment Station*  
 GUSTAV HOWARD RADEBAUGH, *Associate, Machine Shop Practise and Management and Assistant Director, Shop Laboratories*  
 ARTHUR C HARPER, M.E., *Associate, Machine Design*  
 EDGAR MCNAUGHTON, M.E., *Associate, Mechanical Engineering*  
 EARL DOWNING HAY, M.S., *Associate, Machine Design*  
 SIEBELT LUKE SIMMERING, M.S., M.E., *Research Associate, Engineering Experiment Station*  
 WARD ELY PRATT, M.E., *Special Research Associate, Engineering Experiment Station*  
 WILLIAM HARRISON SEVERNS, M.S., *Instructor, Mechanical Engineering*  
 HUSSEIN HALOUK FIKRET, B.S., *Instructor, Mechanical Engineering*  
 EDGAR THOMAS LANHAM, *Instructor, Forge Shop Practise*  
 JOHN GRENNAN, *Instructor, Foundry Practise and Management*  
 BURRILL RUPERT HALL, *Instructor, Pattern Shop Practise and Management*  
 FRANCIS AMES HOBART, *Instructor, Machine Shop Practise and Management*  
 VINCENT STEPHEN DAY, B.S., *Special Research Assistant, Engineering Experiment Station*  
 PETER JOSEPH REBMAN, *Assistant, Forge Work*  
 WILLIAM EDWIN ALLEY, *Assistant and Mechanician, Mechanical Engineering Laboratory*  
 WILLIAM TELL POPE, *Assistant and Mechanician, Shop Laboratories*

**1. Steam and Air Machinery.**—The construction, operation, and care of boilers, engines, and air compressors; elementary thermodynamics; steam engine performance; transmission of compressed air and its applications. (For students in chemical, civil, and mining engineering.) *I*; (3) [2Q; 3 quarter hours]. Mr. SEVERNS, Mr. FIKRET

*Prerequisite:* Junior standing.

**2. Steam Engineering.**—Engines, boilers, pumps, condensers, and other steam machinery. *II*; (3) [W2; 1Q, 2Q; 3 quarter hours].

Assistant Professor KRATZ, Mr. SEVERNS, Mr. MCNAUGHTON, Mr. FIKRET

*Prerequisite:* Physics 1a-1b, 3a-3b.

**3. Steam Engineering.**—The theory of the steam engine, steam turbine, and other steam machinery. (For students in mechanical engineering.) *I*; (3) [W3, 1Q, 3 quarter hours; 3, 2Q, 3 quarter hours; 3a, 2Q, 5 quarter hours; 3b, 3Q, 3 quarter hours].

Assistant Professor KRATZ, Mr. SEVERNS, Mr. MCNAUGHTON

*Prerequisite:* Junior standing.

**11. Thermodynamics and Heat Engines.**—(For students in electrical engineering.) *I*; (3) [W11, 1Q; 11a, 2Q; 3 quarter hours]. Professor GOODENOUGH, Mr. FIKRET

*Prerequisite:* Mechanical Engineering 1 or 2.

**12. Thermodynamics.**—The transformation of heat into work; the second law and its connection with irreversible processes; the properties of heat media; the perfect gases; saturated and superheated vapors; the flow of fluids. *II*; (5) [W12; 1Q, 2Q; 3 quarter hours; 12a, 2Q, 5 quarter hours]. Professor GOODENOUGH, Mr. FIKRET

*Prerequisite:* Mathematics 9a; Theoretical and Applied Mechanics 21.

**15. Gas Power Engineering.**—Internal combustion engines; liquid and gaseous fuels and their combustion; gas producers. *I*; (3) [W15; 1Q, 2Q; 3 quarter hours].

Professor GOODENOUGH, Mr. FIKRET

*Prerequisite:* Mechanical Engineering 12.

**23. Mechanical Equipment of Buildings.**—Theory and practise of designing simple systems for the mechanical equipment of buildings, including heating and ventilation, refrigeration, fire protection, vacuum cleaning, elevators, lighting, and small power plants. Lectures; laboratory. Laboratory fee, \$1.00. *I*; (5) [W23; 1Q; 1½ quarter hours].

Professor WILLARD, Mr. McNAUGHTON

*Prerequisite:* Senior standing.

**25. Heating and Ventilation for Architects.**—The theory and the application of the principles of heating and ventilation to modern practise. Direct and indirect steam and hot water heating; furnace heating; ventilation and air analysis; air conditioning; temperature and humidity control. *I*; (2) [W25; 1Q; 1½ quarter hours].

Professor WILLARD, Mr. McNAUGHTON

*Prerequisite:* Senior standing.

**26. Heating and Ventilation.**—The theory and the application of the principles of heating and ventilation to modern practise. Steam boilers and water heaters of steel and cast iron for heating service; heat losses from buildings; direct and indirect steam and hot water heating, using gravity systems; furnace heating; fan blast or mechanical indirect systems; exhaust steam heating; district heating by steam and water; ventilation and air analysis; air conditioning; temperature and humidity control. *II*; (3) [2Q; 26b, 3Q; 3 quarter hours].

Professor WILLARD, Mr. McNAUGHTON

*Prerequisite:* Mechanical Engineering 65.

**30. Mechanics of Machinery.**—Mechanisms and mechanical movements; cams, gears, valve gears, and quick-return motions; graphical constructions for displacement, velocity, and acceleration; kinetics of the steam engine mechanism and similar mechanisms; balancing; critical speeds; force and mass reduction. *II*; (5) [W30, 1Q, 2 quarter hours; 30, 2Q, 3 quarter hours; 30a, 2Q, 5 quarter hours; 30b, 3Q, 3 quarter hours].

Mr. HARPER, Mr. HAY

*Prerequisite:* Theoretical and Applied Mechanics 21.

**32. Power Transmission.**—Water, air, gas, and steam as power transmitters; the storage of power. *II*; (3) [3Q; 3 quarter hours].

Professor GOODENOUGH, Mr. FIKRET

*Prerequisite:* Mechanical Engineering 12 and 43.

**37. Factory Organization and Management.**—Choice of factory location; planning production; types of machines and number used to manufacture the desired product; routing; machine location; organization and control of factory activities. *I*; (3) [3Q; 3 quarter hours].

Director BENEDICT

*Prerequisite:* Mechanical Engineering 81, 82, and senior standing.

**43. Engineering Design.**—Theory of machine design, with application; investigation of actual machines similar to the one to be designed; design of machinery subjected to heavy and variable stresses; punches, shears, presses, riveters, and cranes. *I*; (5) [W43; 1Q, 2Q; 4 quarter hours].

Professor LEUTWILER, Mr. HARKER, Mr. HAY

*Prerequisite:* Theoretical and Applied Mechanics 29; Mechanical Engineering 30.

**[44. Engineering Design.**—Design and commercial application of special tools, fixtures, jigs, dies, and gauges used in modern high production manufacturing. *II*; (2). Not given, 1918–19.

*Prerequisite:* Mechanical Engineering 37 and 43.]



**52. Power Plant Design.**—Study and design of some form of steam power plant. *II*; (3) [3Q; 4 quarter hours]. Professor LEUTWILER, Mr. HARPER, Mr. HAY  
*Prerequisite:* Mechanical Engineering 43 and 65.

**61. Power Measurement.**—The testing and calibration of instruments and apparatus; use of the indicator, calculation of horse-power and steam consumption; reading of indicator diagrams; valve setting. (For students in electrical engineering.) Laboratory fee, \$2.00. *I*; (2) [2Q; 3 quarter hours]. Assistant Professor KRATZ, Mr. SEVERNS, Mr. FIKRET  
*Prerequisite:* Mechanical Engineering 1 or 2.

**[62. Power Measurement and Steam Engines.**—Laboratory work, substantially the same as that given in Mechanical Engineering 61, supplemented by lectures on steam machinery. Laboratory fee, \$3.00. *II*; (3). Not given, 1918–19.  
*Prerequisite:* Junior standing.]

**64. Power Measurement.**—Apparatus for engine and boiler tests—scales, thermometers, indicators, brakes and dynamometers, gauges, calorimeters; methods of calibrating and using such apparatus; tests for horse-power of steam engines; pumps; and gas engines. Reports. Laboratory fee, \$3.00. *II*; (3) [3Q; 3 quarter hours]. Professor WILLARD, Assistant Professor KRATZ, Mr. SEVERNS, Mr. MCNAUGHTON  
*Prerequisite:* Mechanical Engineering 2; registration in Mechanical Engineering 12 or Chemistry 31.

**65. Power Laboratory.**—Experiments on engines, turbines, gas engines, pumps, boilers, injectors, air compressors, hoisting appliances, heating apparatus, and refrigerating machines. Laboratory fee, \$3.00. *I*; (3) [W65; 1Q, 2Q; 3 quarter hours]. Professor WILLARD, Assistant Professor KRATZ, Mr. SEVERNS, Mr. MCNAUGHTON  
*Prerequisite:* Mechanical Engineering 12 and 64.

**66. Power Laboratory.**—Special research work in the mechanical engineering laboratory. Laboratory fee, \$3.00. *II*; (2) [3Q; 3 quarter hours]. Professor WILLARD, Assistant Professor KRATZ  
*Prerequisite:* Mechanical Engineering 65; senior standing.

**71. Forge Work for Agricultural Students.**—Forging and welding; tempering tools; pointing and hardening cultivator shovels, plowshares. *Six hours a week, either half of I or II*; (1). Laboratory fee, \$1.00. *Time to be arranged.* [2Q; 71a, 3Q; 1 quarter hour]. Mr. REBMAN

**73. Woodwork for Agricultural Students.**—Carpentry for the farmer; use of tools; layout and construction of building joints; repairs to buildings and equipment. *Six hours a week, either half of I or II*; (1). *Time to be arranged.* [2Q; 73a, 3Q; 1 quarter hour]. Mr. HALL

**75. Forge Shop Practise and Management.**—(9 weeks).—Modern forge shop practises, and management of metal forging plants. Planning, routing, dispatching, and inspection of work; time studies; production of standard parts; heat treatment of steel; case carbonizing; machine and hand forging; studies of forge shop practises; methods and equipment. Laboratory fee, \$1.00. *I or II*; (1) [W75; 1Q, 2Q, 3Q; 3 quarter hours]. Mr. LANHAM, Mr. REBMAN

**77. Foundry Practise and Management.**—(18 weeks).—Modern foundry practise and management. Planning, routing, dispatching, and inspection of work; time studies; production of standard castings; brass furnace and cupola practise; machine, bench, and floor molding; core making; cleaning castings; tool and stock room methods; studies of foundry practises, methods, and equipment. Laboratory fee, \$3.00. *I or II*; (3) [W77; 1Q, 2Q, 3Q; 3 quarter hours]. Mr. GRENNAN

**78. Principles of Foundry Operation.**—Principles underlying foundry operation. Foundry organization and management including planning, routing, dispatching, production, inspection, testing, cost accounting, etc.; foundry methods, processes, machines; tools, metals, and materials in modern commercial foundries. *I or II*; (3) [2Q; 78a, 3Q; 3 quarter hours].  
Mr. GRENNAN

*Prerequisite:* Two units of machine shop and foundry practise in accredited schools or colleges.

**79. Pattern Shop Practise and Management.**—(9 weeks).—Training in modern pattern shop practises. Planning, routing, dispatching and inspection of work; time and cost keeping; time studies; work schedules; layout and construction of wood and metal patterns for both machine and hand molding; care and use of tools; machine operation; studies of pattern shop practises, methods, and equipment. Laboratory fee, \$2.00. *I or II*; (2) [W79; 1Q, 2Q, 3Q; 3 quarter hours].  
Mr. HALL

**81. Machine Shop Practise and Management.**—(18 weeks).—Modern machine shop practise and management of metal working plants. Manufacturing methods; shop management; planning; production; routing; dispatching; inspection; time studies; shop accounting; machine operation; assembling; testing; studies of machine shop practise, methods, and equipment. Laboratory fee, \$3.00. *I*; (3) [W81, 1Q, 2 quarter hours; 2Q, 3 quarter hours].  
Mr. RADEBAUGH, Mr. HOBART, Mr. POPE

**82. Machine Shop Practise and Management.**—(Continuation of Mechanical Engineering 81). Laboratory fee, \$2.00. *II*; (2) [2Q; 82a, 3Q; 3 quarter hours].  
Mr. RADEBAUGH, Mr. HOBART, Mr. POPE

**83. Principles of Factory Operation.**—(18 weeks).—Principles underlying factory operation. Practical training in organization and management of a machine shop manufacturing a line of standardized products by modern production methods. Planning; routing; dispatching; inspection; maintenance; testing; cost accounting, etc. Design methods, processes, machines, tools, and materials. *I or II*; (3) [2Q; 83a, 3Q; 3 quarter hours].  
Mr. RADEBAUGH

*Prerequisite:* Two units of machine shop and foundry practise in accredited schools or colleges.

**93. Thesis.**—Investigation of special subject and preparation of thesis embodying a review of the literature of the subject, the results of investigation, and a discussion of those results. *II*; (3). *Time to be arranged.*

**99. Inspection Trip.**—*I*; (no credit).

*Prerequisite:* Senior standing.

### Courses for Graduates.

Entrance or graduate work in mechanical engineering presupposes the full undergraduate course in that subject.

**107 Thermodynamics.**—Application of thermodynamics to the solution of physical and engineering problems *Twice a week; I*; (1 unit). *Time to be arranged.*  
Professor GOODENOUGH

**109. Machine Design.**—Rational design; the application of mechanics of materials. Individual problems. *Twice a week; I or II*; (1 unit). *Time to be arranged.*  
Professor LEUTWILER

**112. Laboratory Investigations.**—Combustion of fuel; boiler economy; steam engines and turbines; gas engines and producers; properties of explosive mixtures; mechanical refrigeration. Original work. *Three times a week; I, II*; (1½ units). *Time to be arranged.*  
Professor RICHARDS and Associates

**MECHANICS, THEORETICAL AND APPLIED**

ARTHUR NEWELL TALBOT, D.Sc., D.Eng., *Professor, Municipal and Sanitary Engineering, in charge of Theoretical and Applied Mechanics*

HERBERT FISHER MOORE, M.M.E., *Research Professor, Engineering Materials, Engineering Experiment Station*

MELVIN LORENIUS ENGER, M.S., C.E., *Professor, Mechanics and Hydraulics*

VIRGIL R FLEMING, B.S., *Assistant Professor, Applied Mechanics*

FRED B SEELY, M.S., *Assistant Professor*

HARRISON FREDERICK GONNERMAN, M.S., *Research Assistant Professor, Theoretical and Applied Mechanics, Engineering Experiment Station*

GEORGE PAUL BOOMSLITER, M.S., *Associate*

NEWTON EDWARD ENSIGN, A.B., B.S., *Associate*

WILLIAM JAMES PUTNAM, B.S., *Instructor*

HARALD MALCOLM WESTERGAARD, Ph.D., *Instructor*

FRANK ERWIN RICHART, M.S., *Research Assistant, Theoretical and Applied Mechanics, Engineering Experiment Station*

[1. **Analytical Mechanics.**—(Especially for graduates and advanced undergraduates in Arts and Sciences.) *I*; (3). Not given, 1918–19. Mr. ENSIGN

*Prerequisite:* Mathematics 8 or 9.]

[2. **Analytical Mechanics.**—(A continuation of Theoretical and Applied Mechanics.) *Lamb's Dynamics. II*; (3). Not given, 1918–19. Mr. ENSIGN

*Prerequisite:* Theoretical and Applied Mechanics 1.]

[10. **Hydraulics.**—Pressure and flow of water; utilization as motive power; observation and measurement; power and efficiency; determination of experimental coefficients. Laboratory weekly. *II*; (3). Not given, 1918–19.

Professor ENGER, Assistant Professor SEELY, Assistant Professor FLEMING, Mr. PUTNAM

*Prerequisite:* Mathematics 9; Theoretical and Applied Mechanics 21.]

[14. **Elements of Mechanics.**—Kinematics, kinetics, and statics. (For architects and others who have not taken the calculus.) *II*; (4) [3Q; 6 quarter hours].

Mr. BOOMSLITER

*Prerequisite:* Mathematics 2, 4.

[15-16. **Strength of Materials.**—Graphical methods; elastic curve of beams; centroids and moments of inertia of areas; reinforced concrete beams and columns; tests of engineering materials. (For students in architecture and others without the prerequisites for course 29.) Laboratory every other week. *I, II*; (3) [W15, 1Q, 2Q; 16, 3Q; 3 quarter hours].

Mr. BOOMSLITER

*Prerequisite:* Theoretical and Applied Mechanics 14.

[20. **Analytical Mechanics.**—The mechanics of engineering rather than that of astronomy and physics. Equilibrium, centroids and center of gravity; friction; problems; statement of conditions and use of data. *II*; (3) [20a, 2Q, 2 quarter hours; 20b, 3Q, 3 quarter hours].

Mr. ENSIGN, Dr. WESTERGAARD

*Prerequisite:* Mathematics 7; registration in Mathematics 9.

[21. **Analytical Mechanics.**—Continuation of course 20. Kinematics and kinetics. *I*; (2). Not given, 1918–19.

Assistant Professor SEELY, Mr. ENSIGN, Dr. WESTERGAARD

*Prerequisite:* Mathematics 9; Theoretical and Applied Mechanics 20.]

[25. **Resistance of Materials.**—A briefer course than Theoretical and Applied Mechanics 29. (For students in architectural, ceramic, chemical, electrical, and mining engineering.) *I*; (4). Not given, 1918–19.

Assistant Professor FLEMING, Assistant Professor SEELY, Mr. ENSIGN, Mr. PUTNAM, Dr. WESTERGAARD

*Prerequisite:* Mathematics 9; Theoretical and Applied Mechanics 20.]

[26. **Analytical Mechanics and Hydraulics.**—Kinematics, kinetics, and hydraulics; problems; hydraulic laboratory. (For students in architectural, electrical, and mining engineering.) Recitations; lectures; assigned reading. Laboratory weekly during the last half of the semester. *II*; (4). Not given, 1918–19.

Assistant Professor FLEMING, Assistant Professor SEELY, Mr. PUTNAM, Dr. WESTERGAARD

*Prerequisite:* Theoretical and Applied Mechanics 25.]

[29. **Resistance of Materials.**—Mechanics of materials; properties and requirements for materials of construction; effect of methods of manufacture on quality; specifications and standard tests. (For students in civil, mechanical, and municipal and sanitary engineering.) Recitations; lectures; assigned reading. Laboratory weekly. *I*; (5). Not given, 1918–19.

Professor TALBOT, Assistant Professor FLEMING, Assistant Professor SEELY, Mr. ENSIGN, Mr. PUTNAM, Dr. WESTERGAARD

*Prerequisite:* Mathematics 9; registration in Theoretical and Applied Mechanics 21.]

W 31-32. **Analytical Mechanics and Strength of Materials.**—Continuation of Theoretical and Applied Mechanics 20, kinematics and kinetics. The mechanics of materials; the properties and requirements for materials of construction; the effect of methods of manufacture on the quality of the material; specifications and standard tests; experiments and investigations in the materials laboratory. Recitations; assigned reading; laboratory. [W31, 1Q, 5 quarter hours; 32, 2Q, 4 quarter hours].

Assistant Professor FLEMING, Assistant Professor SEELY, Mr. ENSIGN, Mr. PUTNAM, Dr. WESTERGAARD

*Prerequisite:* Mathematics 9; Theoretical and Applied Mechanics 20; Theoretical and Applied Mechanics 33 may be used as a prerequisite for Theoretical and Applied Mechanics 32. Several sections of Theoretical and Applied Mechanics 32 are given in the third quarter.

W 33. **Strength of Materials.**—A briefer course than Theoretical and Applied Mechanics 31. [1Q; 4 quarter hours].

Assistant Professor FLEMING, Assistant Professor SEELY, Mr. PUTNAM, Dr. WESTERGAARD

*Prerequisite:* Mathematics 9; Theoretical and Applied Mechanics 20. Several sections of Theoretical and Applied Mechanics 33 are given in the second quarter.

34. **Mechanics and Hydraulics.**—The principles of impulse and momentum. The pressure and flow of water; its utilization as motive power; observation and measurement of pressure, velocity, and flow; power and efficiency; determination of experimental coefficients. Laboratory weekly. [3Q; 4 quarter hours].

Professor ENGER, Assistant Professor SEELY, Assistant Professor FLEMING, Mr. PUTNAM

*Prerequisite:* Theoretical and Applied Mechanics 32.

[36. **Analytical Mechanics.**—The portion of course 26 which involves analytical mechanics. (Open only to railway electrical engineering students.) *II*; (2). Not given, 1918–19.

Mr. PUTNAM

*Prerequisite:* Theoretical and Applied Mechanics 25.]

**41. Advanced Mechanics of Materials.**—Special problems met in engineering. Thick cylinders, guns, curved beams, hooks, chain links, rings, unsymmetrical bending, flat plates, bulk heads; elastic strength of material as affected by heat treatment and over-strain; stresses due to impact loads; resistance of materials to repeated loading; collapsing pressure of thin-walled vessels. Exact versus approximate analyses. Methods of extending approximate analyses. General methods of attack. The application of mechanics to special machine parts and structures. *I*; (3) [3Q; 4 quarter hours].

Assistant Professor SEELY

*Prerequisite:* Theoretical and Applied Mechanics 20 and 25 or 29.

**42. The Properties of Engineering Materials; Specifications and Inspection.**—The properties and uses of materials of construction, iron, steel, non-ferrous metals, wood, concrete, brick, and stone. Standard specifications for materials; methods of inspection. *II*; (2). Not given, 1918–19.

Professor MOORE

*Prerequisite:* Theoretical and Applied Mechanics 20 and 25 or 29.]

**44. Laboratory Work in Testing Materials.**—Study of testing machines and strain measuring apparatus; practise in making standard tests in tension, compression, and flexure. Torsion tests, impact tests, hardness tests, repeated stress tests, and tests of special forms. Systematic tabulation and reduction of test data. Laboratory and computing room periods. This course is planned to serve those who wish to take positions in testing laboratories of the Government or of manufacturers. *II*; (3). Not given, 1918–19.

Professor MOORE

*Prerequisite:* Theoretical and Applied Mechanics 20 and 25 or 29.]

### Courses for Graduates

Entrance on graduate work in theoretical and applied mechanics presupposes a full undergraduate course in that subject.

**101. Analytical Mechanics.**—Methods; problems and applications; critical and comparative study of texts. *Twice a week; I*; (1 unit).

Professor MOORE

**102. Resistance of Materials.**—Methods of determining properties of materials used in engineering construction; mechanics of materials; effect of form of member in a structure or machine; application of forces; comparative study of texts. *Twice a week; II*; (1 unit).

Professor MOORE

**103. Hydraulics and Hydraulic Engineering.**—The laws of hydraulics and their application to engineering problems; hydraulic power and its development; design and investigation. *Twice a week; II*; ( $1\frac{1}{2}$  to 1 unit).

Professor ENGER

**104. Experimental Work in the Laboratory of Applied Mechanics.**—Materials and their action as used in machines and structures; pumps, motors, and measuring devices; laws of hydraulics, development of power, hydraulic problems. *Twice a week; I, II*; ( $\frac{1}{2}$  to 2 units).

Professor TALBOT, Professor MOORE

**105. Experimental and Analytical Work in Reinforced Concrete.**—Research; interpretation of experimental results and their application to the design of structures; principles of construction. *Twice a week; I, II*; ( $1\frac{1}{2}$  units).

Professor TALBOT

### Summer Session Courses

**S 20. Analytical Mechanics.**—The first half of analytical mechanics as given in Maurer's *Technical Mechanics*. (3).

Assistant Professor SEELY

*Prerequisite:* Mathematics 7; registration in Mathematics 9.

**S 21. Analytical Mechanics.**—The second half of analytical mechanics as given in Maurer's *Technical Mechanics*. (3).

Assistant Professor SEELY

*Prerequisite:* Mathematics 9; Theoretical and Applied Mechanics 20.

**S 25. Resistance of Materials.**—The mechanics and properties of materials used in construction; experiments in the testing laboratory; problems. *Merriman's Mechanics of Materials*. (4). Mr. PUTNAM

*Prerequisite:* Mathematics 9; Theoretical and Applied Mechanics 20.

**S 41. Advanced Mechanics of Materials.**—Special problems met in engineering. Thick cylinders, guns, curved beams, hooks, unsymmetrical bending, flat plates; elastic strength of material as affected by heat treatment and over-strain; stress due to impact loads; resistance of material to repeated loading; collapsing pressure of thin-walled vessels; the application of mechanics to special machine parts and structures. (3).

Assistant Professor SEELY

*Prerequisite:* Theoretical and Applied Mechanics 20 and 25 or 29.

## MEDICINE

(See under COLLEGE OF MEDICINE.)

## METEOROLOGY

(See under GEOLOGY.)

## MINERALOGY

(See under GEOLOGY.)

## MILITARY SCIENCE

BEN W FEILD, Major, Infantry, *Professor and Commandant*

WILLIAM R SCHMIDT, Major, 12th Infantry, *Associate Professor*

ROSCOE A GOODCELL, Captain, Infantry, U. S. A., *Assistant Professor*

HARRY O MOORE, 1st Lieutenant, 83rd F. A., *Associate*

**1b-2b-3b-4b. Theoretical Instruction.**—Basic course. Infantry drill regulations. Theory of target practise. map reading, sanitation, lectures on general military policy of the United States and military obligations of citizenship. Military courtesies. Field service regulations. Field Artillery; provisional drill regulations for Field Artillery; equitation, liaison, codes and ciphers. For all cadets, freshman and sophomore years. *I, II; (1/2).*

Professor FEILD

**1a-2a-3a-4a. Military Drill.**—Basic course. Infantry: Infantry drill regulations; small arm firing regulations; bayonet exercise; ceremonies. Signal company: Semaphore and wig-wag; telegraph; wireless; projector; map reading; entrenchments; bridge building. Field Artillery: equitation, liaison. Freshman and sophomore years. *Two drill periods a week. I, II; (1/2).*

Professor FEILD

**5b-6b-7b-8b. Theoretical Instruction.**—Advanced course. Infantry drill; small arm firing; field service. Field Artillery; liaison, code and cipher; sand table problems. *Two hours a week. I, II; (1/2).*

Professor FEILD

**5a-6a-7a-8a. Military Drill.**—Advanced Course. Practical duties consistent with rank of officers and non-commissioned officers. *Three hours a week. I, II; (1/2).*

Professor FEILD

## MINING ENGINEERING

HARRY HARKNESS STOEK, B.S., E.M., *Professor, Head of the Department*

CLINTON MASON YOUNG, B.S., E.M., *Assistant Professor, Mining Research*

RAY WALTER ARMS, E.M., *Instructor*

**1. Earth and Rock Excavation.**—Explosives; blasting; boring; tunneling; shaft-sinking; coal-cutting; timbering and prospecting. *I*; (3) [2Q; 3 quarter hours]. Professor STOEK

*Prerequisite:* Chemistry 1a or 1b; Geology 20 and 43.

**2. Mining Principles.**—Terminology; explosives and blasting; well and rock drilling; coal cutting; shaft-sinking and tunneling; methods of working and timbering flat and inclined deposits. For students in courses other than mining. Of special interest to those taking advanced military work. *I or II*, (3) [3Q; 3 quarter hours].

Professor STOEK, Mr. ARMS

*Prerequisite:* Chemistry 1a or 1b; junior standing.

**4. Mining Methods.**—Mining and timbering of bedded, vein, and placer deposits. *II*; (3) [2Q; 4a, 3Q; 3 quarter hours]. Professor STOEK

*Prerequisite:* Mining 1.

**5. Mine Ventilation.**—Mine gases; safety lamps; mine ventilation; lighting and signaling; explosions and mine fires; rescue work and first aid. Laboratory work. *I*; (3).

Professor STOEK, Mr. ARMS

*Prerequisite:* Chemistry 1a or 1b, 4; Physics 1a-1b, 3a-3b; Mining 4.

**6. Mechanical Engineering of Mines.**—Hoisting; ropes, cages, hoisting engines, and other appliances. Haulage: the different systems used underground and on the surface; the methods of loading and unloading; mine stables; transportation of workmen. Drainage of mines: mine dams, mine pumps. *II*; (2) [6b; 2Q; 3 quarter hours]. Mr. ARMS

*Prerequisite:* Mechanical Engineering 1, or equivalent.

**7. Mining Machinery.**—Elementary principles of mining machines, hoisting, haulage, ventilation. *II*; (2) [6a; 2Q; 3 quarter hours]. Mr. ARMS

**8. Mine and Metallurgical Law, Administration, and Accounts.**—Laws governing location, ownership, and policing of mines. Trade agreements, relations between employers and employees. Sociology. Accounts and cost sheets. *II*; (3) [3Q; 4 quarter hours].

Professor STOEK

*Prerequisite:* Mining 3 or 4, or Geology 2.

**9. Preparation of Coal and Ores.**—History, principles, processes, machines; applications to dry coal preparation and coal washing. Breaking, sizing, and concentrating ores. Laboratory practise in coal washing. Laboratory fee, \$2.00. *I*; (3). Mr. ARMS

*Prerequisite:* Chemistry 5; Physics 3a-3b.

**13. Utilization of Fuels.**—The manufacture, handling, and utilization of wood, charcoal, peat, lignite, bituminous coal, anthracite, coke, petroleum, natural and artificial gas, and refractories in mining and metallurgical practise. *II*; (2). Professor STOEK

*Prerequisite:* Junior standing.

**15. Principles of Mine Ventilation.**—Mine ventilation, signaling, and lighting. *I*; (1)

Mr. ARMS

*Prerequisite:* Physics 3a-3b; Mining 2 or 3 or 4.

**17. Problems.**—Problems, library research, and reports on mining and metallurgical subjects. *I*; (1). Professor STOEK

*Prerequisite:* Senior standing in mining engineering.

**19. Ore and Coal Preparation.**—Principles and machines used in breaking, pulverizing, sizing, classifying, and concentrating ores and mineral products. Wet and dry concentration. Practical limits of ore dressing. Principles applied in coal preparation. Laboratory practise in ore concentration. *I*; (3) [2Q, 3Q; 3 quarter hours]. Mr. ARMS

*Prerequisite:* Chemistry 5; Geology 13a and 13b or equivalent.

**21. Mine Examination and Valuation.**—The methods of examining, valuing, and reporting on mines, mining and metallurgical plants. Estimation and prospecting of mineral deposits. *I*; (2) [2Q; 2 quarter hours]. Professor STOEK

*Prerequisite:* Mining 2 or 3 or 4, or registration in Mining 2; Geology 13a and 13b or equivalent.

**41. Principles of Coal Plant Design.**—Design of mine structures of wood, steel, and masonry, with drafting practise in design of coal tipples and general surface plant. *I*; (3) [1Q; 1 quarter hour]. Mr. ARMS

*Prerequisite:* Civil Engineering 58, or equivalent.

**42. Coal Plant Design.**—General layout; design; estimates for construction and specifications for coal mining plant. *II*; (2) [2Q; 3 quarter hours]. Mr. ARMS

*Prerequisite:* Mining 41.

**43. Principles of Ore Plant Design.**—Design of mine structures of wood, steel, and masonry, with drafting practise in design of rock houses, ore bins, and crushing plants. *I*; (3) [1Q; 1 quarter hour]. Mr. ARMS

*Prerequisite:* Civil Engineering 58, or equivalent.

**44. Ore Plant Design.**—General layout; design; estimates for construction and specifications for ore mining plants. *II*; (2) [2Q; 3 quarter hours]. Mr. ARMS

*Prerequisite:* Mining 43.

**45. Principles of Mill and Smelter Design.**—Flow sheets and structures of wood, steel, and masonry; drafting practise on individual designs. *I*; (3) [1Q; 1 quarter hour]. Mr. ARMS

*Prerequisite:* Civil Engineering 58, or equivalent.

**46. Mill and Smelter Design.**—Flow sheets; design; estimates for construction, and specifications for concentrating plant or smelter. *II*; (2) [2Q; 3 quarter hours]. Mr. ARMS

*Prerequisite:* Mining 45.

**62. Mine Surveying.**—The application of general surveying methods to mine work; the description and use of instruments employed underground and in connecting surface and underground surveys; the platting and use of mine maps; mineral land surveying; the theory and use of solar attachments; determination of the meridian. A surveying trip is made to neighboring mines, of which the estimated cost is \$10.00. Laboratory fee, \$1.00. *II*; (3) [3Q; 3 quarter hours]. Mr. ARMS

*Prerequisite:* Civil Engineering 35.

**64. Coal Mining Laboratory.**—Different coals: their availability for crushing, dry preparation, washing, and briquetting. Complete commercial tests, using small commercial machines wherever possible; design of flow sheets; analysis of products. Estimation of probable costs. Laboratory fee, \$3.00. *II*; (3). Mr. ARMS

**66. Ore Concentration Laboratory.**—Complete commercial wet and dry concentration tests on raw ores of lead, zinc, iron, etc. Amalgamation and cyanidation of a gold ore. Sampling, preparation, and analysis or assay of the products recovered. Laboratory fee, \$3.00. *II*; (3). Mr. ARMS

*Prerequisite:* Mining 9 or 19.

**68. Mine Topography.**—Stadia; application of topographic and railroad surveying to mining conditions. *II*; (1). Mr. ARMS

*Prerequisite:* Civil Engineering 27.

**90. Mining and Metallurgical Reports.**—Review of mining and metallurgical literature; reports; technical writing. *II*; (1). Professor STOEK



**98. Thesis.**—Individual investigation of a special mining subject; preparation of thesis giving review of the literature, the results of experimental work, and a general discussion of the subject. *II; (3).*

(Hours arranged when thesis is permitted in accordance with regulations of the College of Engineering.)

**99. Inspection Trip.**—*I; (no credit).*

*Prerequisite:* Senior standing.

### Courses in Metallurgy

See Chemistry 7, Metallurgy (general metallurgy; iron and steel); Chemistry 7a, Metallurgy of the non-ferrous metals (copper, lead, zinc, gold, silver); Chemistry 69, Metallurgical laboratory and assaying, fire assays and special metallurgical experiments, calculation of charges, high temperature measurements; Chemistry 78, Metallography (Constitution and microstructure of metals and alloys, etc.) pages 267-271.

### Courses for Graduates

Entrance on graduate work in mining engineering presupposes a full undergraduate course in that subject.

**100. Seminar.**—*Once a week; I, II; (1 unit).*

Professor STOEK

**101. Advanced Mining Methods.**—Coal and ore fields of the United States; methods and economics of mining; utilization, marketing, storage, and transportation of coal and ores. *Twice a week; I, II; (1 unit) [1Q, 2Q, 3Q]. Time to be arranged.* Professor STOEK

**102. Advanced Preparation of Coal and Ores.**—Detailed investigation and discussion of settling ratios; laws of crushing; sorting vs. sizing; specific mill and washing problems. *Twice a week; I, II; (1 unit). Time to be arranged.*

**103 The History of Miners' Organizations.**—The effect of organizations on the development of mining practise. *Twice a week; I, II; (1 unit). Time to be arranged.*

Professor STOEK

**104. Mining Reports.**—The law of the apex; classification of coal and ore lands; conservation of mineral resources; mine examination and report. *Twice a week; I, II; (1 unit) [2Q, 3Q]. Time to be arranged.*

Professor STOEK

**105. Welfare Work and Education Among Mine Employees.**—The organization and operation of mining institutes, night classes, welfare, mine rescue and first-aid work. *Twice a week; I, II; (1 unit). Time to be arranged.*

Professor STOEK

## MUNICIPAL AND SANITARY ENGINEERING

ARTHUR NEWELL TALBOT, D.Sc., D.Eng., *Professor*

MELVIN LORENIUS ENGER, M.S., C.E., *Professor, Mechanics and Hydraulics*

VIRGIL R FLEMING, B.S., *Assistant Professor, Applied Mechanics*

HAROLD EATON BABBITT, M.S., *Associate*

**2. Water Supply Engineering.**—Source of supply; hydraulics of wells; stream flow; impounding and storage reservoirs; conduits and pipe lines; pumps and pumping machinery; stand-pipes and elevated tanks; the distribution system; tests and standards of purity of potable water. Designing weekly. *I; (4) [W2; 1Q; 3 quarter hours].* Professor ENGER

*Prerequisite:* Theoretical and Applied Mechanics 29, 10; Chemistry 1; Mechanical Engineering 1 or 2.

**3. Sewerage.**—Sewerage systems; sanitary necessity; separate and combined water carriage systems; surveys, and general plans; hydraulics; house sewage and its removal;

rainfall and storm-water flow; size and capacity of sewers; sewer appurtenances; sewage disposal; estimates and specifications. Designing weekly. *II*; (3) [2Q; 4 quarter hours].

Assistant Professor FLEMING, Mr. BABBITT

*Prerequisite:* Theoretical and Applied Mechanics, 29, 10; Chemistry 1; Municipal and Sanitary Engineering 2.

6a-5b. **Water Purification, Sewage Disposal, and General Sanitation.**—Impurities in water supplies and their removal; sewage disposal by filtration, chemical precipitation, irrigation; purification plants; garbage; sanitary restrictions and regulations; general sanitation. Lectures; seminar work; drafting. *I*, (3); *II*, (2) [W6a, 1Q, 3 quarter hours; 6b, 2Q, 2 quarter hours].

Professor TALBOT, Professor ENGER, Mr. BABBITT

*Prerequisite:* Municipal and Sanitary Engineering 2, 3; Chemistry 1, 3, 10b.

9. **Hydraulic Design and Construction.**—Reservoirs, dams, conduits, and waterways; hydraulic engineering problems. *II*; (2) [2Q, 3Q; 3 quarter hours]. Professor ENGER

98. **Thesis.**—Investigation or design of an engineering problem. *II*; (2).

Professor TALBOT

99. **Inspection Trip.**—*I*; (no credit).

*Prerequisite:* Senior standing.

### Courses for Graduates

Entrance on graduate work in municipal and sanitary engineering presupposes a full undergraduate course in that subject.

102. **Water Supply Engineering.**—Water supply; general waterworks construction; pumps and pumping; reservoirs and elevated tanks; waterworks operation; valuation of plants. *One to three times a week; I or II; (1 unit).*

Professor ENGER

103. **Sewerage.**—Sewerage systems; hydraulics of sewers; run-off. *Once or twice a week; II; (1 unit).*

Professor TALBOT

106. **Water Purification, Sewage Disposal, and General Sanitation.**—Water purification plants and sewage disposal works; comparison of results and cost of construction and operation; experimental work on water and sewage treatment; garbage; general sanitation. *Once a week; II; (½ unit or more).*

Professor TALBOT

### MUSIC

- JOHN LAWRENCE ERB, F.A.G.O., *Director, University Organist*
- GEORGE FOSS SCHWARTZ, A.M., B.Mus., *Assistant Professor, Theory and History of Music*
- ALBERT AUSTIN HARDING, *Assistant Professor, Wind Instruments, Director of the Band*
- HENRI JACOBUS VAN DEN BERG, *Instructor, Piano*
- EDNA ALMEDA TREAT, B.Mus., *Instructor, Piano and Organ* ✓
- EDSON WILFRED MURPHY, *Instructor, Violin*
- ARTHUR BERESFORD, *Instructor, Voice*
- FRANK TATHAM JOHNSON, *Instructor, Voice*
- MABELLE GENEVIEVE WRIGHT, A.B., B.Mus., *Instructor, Piano* ✓
- OLGA EDITH LEAMAN, *Instructor, Voice*
- MARY DODDS PHILLIPS, *Instructor, Public School Music*

1-2. **History of Music.**—*I, II; (2)* [W1, 1Q, 2Q, 3Q; 2 quarter hours].

Assistant Professor SCHWARTZ

*Prerequisite:* One year of university work.

2-4. **Theory of Music (Harmony).**—*I, II; (2)* [W3, 1Q, 2Q; 4, 3Q; 2 quarter hours].

Assistant Professor SCHWARTZ

**5-6. Theory of Music (Harmony).**—Continuation of 3-4. *I, II*; (3) [W5; 1Q, 2Q; 6; 3Q; 3 quarter hours]. Assistant Professor SCHWARTZ

*Prerequisite:* Music 3-4.

**7-8. Counterpoint, Canon, and Fugue.**—*I, II*; (3) [W7, 1Q, 2Q; 8, 3Q; 3 quarter hours]. Assistant Professor SCHWARTZ

*Prerequisite:* Music 5-6.

**9-10. General Theory and Analysis.**—*I, II*; (2) [W9, 1Q, 2Q; W10, 3Q; 2 quarter hours]. Director ERB

*Prerequisite:* Music 7-8.

**11-12. Acoustics.**—*I, II*; (1) [W11, 1Q, 2Q; 12, 3Q; 1 quarter hour]. Director ERB

*Prerequisite:* Music 3 to 8 inclusive.

**13-14. Musical Appreciation.**—*I, II*; (1) [W13, 1Q, 2Q; 14, 3Q; 1 quarter hour].

Director ERB

**21a-21b. Ear Training, First Year.**—Two hours a week, required of all music students. *I, II*; (*no credit*) [W21; 1Q, 2Q, 3Q; *no credit*]. Miss PHILLIPS

**22a-22b. Ear Training, Second Year.**—Two hours a week, required of students in the curriculum in music in the sophomore year. *I, II*; (1) [W22; 1Q, 2Q, 3Q; 1 quarter hour]. Miss PHILLIPS

**23a-23b. Sight Singing, First Year.**—Two hours a week; required of students in the curriculum in music in the junior year. *I, II*; (*no credit*) [W23; 1Q, 2Q, 3Q; *no credit*].

Miss PHILLIPS

**24a-24b. Sight Singing, Second Year.**—Two hours a week; required of students in the curriculum in music in the junior year. *I, II*; (1) [W24; 1Q, 2Q, 3Q; 1 quarter hour].

Miss PHILLIPS

**25a-25b. Methods of Teaching.**—Elements of theory, eye and ear training, the limitations of the child-voice, selection of material, pedagogical presentations, appreciation work for the high school. (Primarily for students preparing to teach music in the public schools.) *I, II*; (4) [W25; 1Q, 2Q, 3Q; 4 quarter hours]. Miss PHILLIPS

**27a-27b. Ensemble.**—*I, II*; (1) [W27; 1Q, 2Q, 3Q; 1 quarter hour].

**28a-28b. Sight Singing, Elementary.**—One hour a week for beginners. *I, II*; (*no credit*) [W28; 1Q, 2Q, 3Q; *no credit*]. Miss PHILLIPS

## Piano

MR. VAN DEN BERG, MISS TREAT, MISS WRIGHT

NOTE.—A student enrolled in *piano* is required to take either choral or orchestra; a student absent from choral or orchestra more than three times in a semester, without an excuse acceptable to the Director of the School of Music, receives a failure in his course in *piano*.

**41a-41b. Introductory Course in Piano, First year.**—*I, II*; (*no collegiate credit*) [W41; 1Q, 2Q, 3Q; *no collegiate credit*].

**41c-41d. Introductory Course in Piano, Second Year.**—*I, II*; (*no collegiate credit*).

**41e-41f. Introductory Course in Piano, Third Year.**—*I, II*; (*no collegiate credit*).

**42a-42b. Piano, First Year.**—*I, II*; (4) [W42; 1Q, 2Q, 3Q; 4 quarter hours].

**43a-43b. Piano, Second Year.**—*I, II*; (4) [W43; 1Q, 2Q, 3Q; 4 quarter hours].

**44a-44b. Piano, Third Year.**—*I, II*; (4) [W44; 1Q, 2Q, 3Q; 4 quarter hours].

**45a-45b. Piano, Fourth Year.**—*I, II*; (4) [W45; 1Q, 2Q, 3Q; 4 quarter hours].

**46a-46b, 46c-46d, 46e-46f, 46g-46h. Piano.**—Piano taken as a minor by students majoring in voice or violin. *I, II*; (2) [W46; 1Q, 2Q, 3Q; 2 quarter hours].

**47a-47b, 47c-47d, 47e-47f. Piano.**—For students from other departments of the University. *I, II; (no credit, except in the College of Liberal Arts and Sciences.)* [W47; 1Q, 2Q, 3Q; *(no credit, except in the College of Liberal Arts and Sciences under certain conditions)*<sup>1</sup>].

### Voice

Mr. BERESFORD, Mr. JOHNSON, Miss LEAMAN

NOTE.—A student enrolled in *voice* is required to take either choral or orchestra; a student absent from choral or orchestra more than three times in a semester, without an excuse acceptable to the Director of the School of Music, receives a failure in his course in *voice*.

**51a-51b. Introductory Course in Voice, First Year.**—*I, II; (no collegiate credit)* [W51; 1Q, 2Q, 3Q; *no collegiate credit*].

**51c-51d. Introductory Course in Voice, Second Year.**—*I, II; (no collegiate credit)* [W51; 1Q, 2Q, 3Q; *no collegiate credit*].

**51e-51f. Introductory Course in Voice, Third Year.**—*I, II; (no collegiate credit)* [W51; 1Q, 2Q, 3Q; *no collegiate credit*].

**52a-52b. Voice, First Year.**—*I, II; (4)* [W52; 1Q, 2Q, 3Q; 4 quarter hours].

**53a-53b. Voice, Second Year.**—*I, II; (4)* [W53; 1Q, 2Q, 3Q; 4 quarter hours].

**54a-54b. Voice, Third Year.**—*I, II; (4)* [W54; 1Q, 2Q, 3Q; 4 quarter hours].

**55a-55b. Voice, Fourth Year.**—*I, II; (4)* [W55; 1Q, 2Q, 3Q; 4 quarter hours].

**56a-56b, 56c-56d, 56e-56f, 56g-56h. Voice.**—Voice taken as a minor by students majoring in piano or violin. *I, II; (2)* [W56; 1Q, 2Q, 3Q; 2 quarter hours].

**57a-57b, 57c-57d, 57e-57f. Voice.**—For students from other departments of the University. *I, II; (no credit, except in the College of Liberal Arts and Sciences under certain conditions)*<sup>1</sup> [W57; 1Q, 2Q, 3Q; *no credit, except in the College of Liberal Arts and Sciences under certain conditions)*<sup>1</sup>].

### Violin

Mr. MORPHY

NOTE.—A student enrolled in *violin* is required to take either choral or orchestra; a student absent from choral or orchestra more than three times in a semester, without an excuse acceptable to the Director of the School of Music, receives a failure in his course in *violin*.

**61a-61b. Introductory Course in Violin, First Year.**—*I, II; (no collegiate credit)* [W61; 1Q, 2Q, 3Q; *no collegiate credit*].

**61c-61d. Introductory Course in Violin, Second Year.**—*I, II; (no collegiate credit)* [W61; 1Q, 2Q, 3Q; *no collegiate credit*].

**61e-61f. Introductory Course in Violin, Third Year.**—*I, II; (no collegiate credit)* [W61; 1Q, 2Q, 3Q; *no collegiate credit*].

**62a-62b. Violin, First Year.**—*I, II; (4)* [W62; 1Q, 2Q, 3Q; 4 quarter hours].

**63a-63b. Violin, Second Year.**—*I, II; (4)* [W63; 1Q, 2Q, 3Q; 4 quarter hours].

**64a-64b. Violin, Third Year.**—*I, II; (4)* [W64; 1Q, 2Q, 3Q; 4 quarter hours].

**65a-65b. Violin, Fourth Year.**—*I, II; (4)* [W65; 1Q, 2Q, 3Q; 4 quarter hours].

**66a-66b, 66c-66d, 66e-66f, 66g-66h. Violin.**—Violin taken as a minor by students majoring in piano or voice. *I, II; (2)* [W66; 1Q, 2Q, 3Q; 2 quarter hours].

**67a-67b, 67c-67d, 67e-67f. Violin.**—For students from other departments of the University. *I, II; (no credit, except in the College of Liberal Arts and Sciences under certain conditions)*<sup>1</sup> [W67; 1Q, 2Q, 3Q; *no credit, except in the College of Liberal Arts and Sciences under certain conditions)*<sup>1</sup>].

<sup>1</sup>See page 116.

## Violoncello

Mr. SCHWARTZ

NOTE.—A student enrolled in *violoncello* is required to take either choral or orchestra; a student absent from choral or orchestra more than three times in a semester, without an excuse acceptable to the Director of the School of Music, receives a failure in his course in *violoncello*.

**71a-71b. Introductory Course in Violoncello, First Year.—I, II; (no collegiate credit)** [W71; 1Q, 2Q, 3Q; *no collegiate credit*].

**71c-71d. Introductory Course in Violoncello, Second Year.—I, II; (no collegiate credit)** [W71; 1Q, 2Q, 3Q; *no collegiate credit*].

**71e-71f. Introductory Course in Violoncello, Third Year.—I, II; (no collegiate credit)** [W71; 1Q, 2Q, 3Q; *no collegiate credit*].

**72a-72b. Violoncello, First Year.—I, II; (4)** [W72; 1Q, 2Q, 3Q; 4 quarter hours].

**73a-73b. Violoncello, Second Year.—I, II; (4)** [W73; 1Q, 2Q, 3Q; 4 quarter hours].

**74a-74b. Violoncello, Third Year.—I, II; (4)** [W74; 1Q, 2Q, 3Q; 4 quarter hours].

**75a-75b. Violoncello, Fourth Year.—I, II; (4)** [W75; 1Q, 2Q, 3Q; 4 quarter hours].

**76a-76b, 76c-76d, 76e-76f, 76g-76h. Violoncello.—Violoncello taken as a minor by students majoring in piano, voice or violin. I, II; (2)** [W76; 1Q, 2Q, 3Q; 2 quarter hours].

**77a-77b, 77c-77d, 77e-77f. Violoncello.—For students from other departments of the University. I, II; (no credit, except in the College of Liberal Arts and Sciences under certain conditions<sup>1</sup>)** [W77; 1Q, 2Q, 3Q; *no credit, except in the College of Liberal Arts and Sciences under certain conditions<sup>1</sup>*].

## Organ

Director ERB, Miss TREAT

NOTE: A student enrolled in *organ* is required to take either choral or orchestra; a student absent from choral or orchestra more than three times in a semester, without an excuse acceptable to the Director of the School of Music, receives a failure in his course in *organ*.

Students desiring to take *organ* will be obliged to pass without conditions the entrance examination in piano. Under no circumstances will they be accepted if their piano work falls below the standard represented by this examination.

**81-82. Organ, First Year.—I, II; (4)** [W81, 1Q, 2Q; W82, 3Q; 4 quarter hours].

**84-85. Organ, Second Year.—I, II; (4)** [W84, 1Q, 2Q; W85, 3Q; 4 quarter hours].

**86-87. Organ, Third Year.—I, II; (4)** [W86, 1Q, 2Q; W87, 3Q; 4 quarter hours].

**88-89. Organ, Fourth Year.—I, II; (4)** [W88, 1Q, 2Q; W89, 3Q; 4 quarter hours].

**83a-83b, 83c-83d. Organ, Two Years.—First two years' work in organ taken as a minor by students majoring in piano, voice, or violin. I, II; (2)** [W83; 1Q, 2Q, 3Q; 2 quarter hours].

## Band, Orchestra, and Ensemble Work

**90a-90b. Band Instruments.—Band Instruments taken as a minor by students majoring in piano, voice or violin. I, II; (2)** [W90; 1Q, 2Q, 3Q; 2 quarter hours].

**92a-92b. Band Instruments.—I, II; (no credit)** [W92; 1Q, 2Q, 3Q; *no credit*]. A student enrolled in this course is required to take either choral or orchestra, and if absent from choral or orchestra more than three times a semester, without an excuse acceptable to the Director of the School of Music, receives a failure in the course. Mr. HARDING

**94a-94b. Recital Course in Practical Music.—(For seniors in Music 45a-45b, 55a-55b, 65a-65b, 88-89.) I, II; (1)** [W94, 1Q, 2Q, 3Q; 1 quarter hour].

<sup>1</sup> See page 116.

- 96a-96b. **Band Instrumentation.**—*I, II; (no credit)* [W96; 1Q, 2Q, 3Q; *no credit.*] Mr. HARDING  
 97a-97b. **Band Arranging.**—*I, II; (no credit)* [W97; 1Q, 2Q, 3Q; *no credit.*] Mr. HARDING  
 98a-98b. **Band Conducting.**—*I, II; (no credit)* [W98; 1Q, 2Q, 3Q; *no credit.*] Mr. HARDING

### Summer Session Courses

**S 1a. Musical History.**—Biography, including critical discussions of important compositions, and the investigation of national tendencies in modern music. Collateral reference work and note books are required. (2). Director ERB

*Prerequisite:* The consent of the instructor and Music S 1.

**S 2a. Advanced Harmony.**—The chromatic harmonies; diatonic and chromatic modulation; sequences; suspensions; figured bass playing; harmonization with four clefs; harmonic analysis continued. (1). Director ERB

(This course will not be given unless five students register for it).

*Prerequisite:* One and one-half years' harmony.

**S 3a. Harmony.**—The septchords; including dominant and secondary sevenths, also the dominant ninth; harmonization with three clefs on four staves; sequences; key relations and simple diatonic modulations; harmonic analysis commenced; keyboard work. (2). Director ERB

*Prerequisite:* One semester in harmony.

**S 6a. Public School Music Methods.**—Problems of supervision in the grades; sight-singing; ear-training; study of material; music appreciation. (2). Mr. SWINNEY

*Prerequisite:* Two years of sight reading and the consent of the instructor.

**S 41a-41f. Preparatory Course in Piano.**—(*No university credit.*) Miss TREAT

*Prerequisite:* The consent of the instructor.

**S 42-46. Piano, Collegiate Grade.**—(1 or 2). Miss TREAT

*Prerequisite:* Three years of piano study.

**S 47. Piano, Collegiate Grade.**—For students in other schools and colleges of the University. (1). Miss TREAT

*Prerequisite:* Three years of piano study.

**S 51a-51f. Preparatory Course in Voice.**—(*No university credit.*) Mr. SWINNEY

*Prerequisite:* The consent of the instructor.

**S 52-56. Voice, Collegiate Grade.**—(1 or 2). Mr. SWINNEY

*Prerequisite:* Three years of vocal study.

**S 57. Voice, Collegiate Grade.**—For students in other schools and colleges of the University. (1). Mr. SWINNEY

*Prerequisite:* Three years of vocal study.

**S 81. Organ.**—(1). Miss TREAT

*Prerequisite:* Three years of piano study or the equivalent.

**S 82. Organ.**—For students in other schools and colleges of the University. (1). Miss TREAT

*Prerequisite:* Three years of piano study or the equivalent.

### ORIENTAL LANGUAGES AND LITERATURE

ALBERT TEN EYCK OLMSTEAD, Ph.D., Professor

**Courses for Advanced Undergraduates and Graduates**

**1a-1b.<sup>1</sup> Elementary Hebrew.**—Grammar and reading. The Book of Genesis. *I, II; (3).*

*Prerequisite:* Junior standing.

**[10. Elementary Assyrian.**—Grammar, sign lists, and reading. *I, II; (3).* Not given, 1917-18.

*Prerequisite:* Oriental Languages 1a and 1b.]

**PALEONTOLOGY**

(See GEOLOGY.)

**PHILOLOGY**

(See CLASSICS, COMPARATIVE PHILOLOGY, ENGLISH LANGUAGE AND LITERATURE, GERMANIC LANGUAGES AND LITERATURE, and ROMANCE LANGUAGES AND LITERATURE.)

**PHILOSOPHY**

(See also PSYCHOLOGY and EDUCATION.)

ARTHUR HILL DANIELS, Ph.D., *Professor*

BOYD HENRY BODE, Ph.D., *Professor*

AXEL BRETT, A.M., *Assistant*

**Major:** Twenty hours from any courses offered by the department, including philosophy 1, 2, 3, and 4, and one other advanced course. Six hours in psychology may be counted toward a major in philosophy.

**Minors:** Twenty hours in (a) psychology (at least six additional hours, if psychology is counted toward a major), and one other subject in the following list; or (b) any two subjects in the same group in the following list: (A) economics, history, political science, education, sociology; (B) English, French, German, Greek, Latin; (C) botany, chemistry, mathematics, physics, zoology. No course in any subject of the above groups may be counted for the minor requirement if it is excluded from the major requirement of its respective department.

**Courses for Undergraduates**

**1. Logic.**—The principles of reasoning; detection of fallacies; evidence. *I or II; (3)* [W1; 1Q, 2Q; 3 quarter hours].

Professor BODE, Mr. BRETT

*Prerequisite:* One year of university work.

**2. Introduction to Philosophy.**—Philosophic problems in their relation to the doctrine of evolution and in their bearing on conduct and religion. *II; (3)* [3Q; 3 quarter hours].

Professor BODE, Mr. BRETT

*Prerequisite:* Two years of university work.

**9. Political and Social Ethics.**—A study of the standards and principles of human conduct in political and social relations. Rights and duties of the state and citizen. International morality. *I; (3)* [W9; 1Q, 3Q; 3 quarter hours].

Professor DANIELS

*Prerequisite:* Two years of university work.

**Courses for Advanced Undergraduates and Graduates**

**3. History of Ancient and Medieval Philosophy.**—*I; (3)* [W3; 1Q; 3 quarter hours].

Professor DANIELS

<sup>1</sup>It is expected that courses 1a-1b and 10 will be offered in alternate years.

- 4. History of Modern Philosophy.**—From the Renaissance to the present time. *II*; (3) [2Q; 3 quarter hours]. Professor DANIELS

*Prerequisite:* Three hours of philosophy; junior standing.

- 7. Ethics.**—The beginnings and growth of morality; the fundamental questions of ethical theory; social and economic problems of the present. *II*; (3) [2Q; 4 quarter hours]. Professor DANIELS

*Prerequisite:* Three hours in philosophy; senior standing.

- 11. Philosophy of Religion.**—The philosophical interpretation of religious experience. *II*; (2) [3Q; 3 quarter hours]. Professor DANIELS

*Prerequisite:* Senior or graduate standing; six hours in psychology or philosophy, or in both.

- 15. British Philosophers of the Eighteenth Century.**—Locke, Berkeley and Hume. *I*; (3) [W15; 1Q, 2Q; 3 quarter hours]. Professor BODE

*Prerequisite:* Philosophy 2 or 3 or 4.

- 16. Philosophy of Pragmatism.**—*II*; (3) [3Q; 3 quarter hours]. Professor BODE

*Prerequisite:* Philosophy 15.

### Courses for Graduates

Students entering on graduate work in philosophy must have had a thoro course in the history of philosophy, a course in logic, and a general course in psychology.

- [103. **Seminar in Ethics.**—British ethics from Hobbes to Sidgwick. *Twice a week*; *I*, *II*; (1 unit). Not given, 1918-19. Professor DANIELS]

**107a-107b-107c. History of Philosophy.**—a: Plato and Aristotle. *Twice a week*; (1 unit). b: Descartes, Spinoza, and Leibnitz. *Twice a week*; (1 unit); c: Kant and Schopenhauer. *Twice a week*; (1 unit); *I*, *II* [107a; 3Q; 1 quarter unit]. Professor DANIELS

**108a-108b-108c. Seminar in Contemporary Philosophy.**—a: Idealism. *Twice a week*; (1 unit). b: Realism and pragmatism. *Twice a week*; (1 unit). c: The philosophy of Bergson. *Twice a week*; (1 unit). *I*, *II* [W108; 1Q, 2Q, 3Q; 3 quarter units]. Professor BODE

### Summer Session Course

**S 9. Political and Social Ethics.**—A study of the standards and principles of human conduct in political and social relations. Rights and duties of the state and citizen. International morality. (2). Professor DANIELS

### PHOTOGRAPHY

ARTHUR GRENVILLE ELDREDGE, *Instructor*

**1-2<sup>1</sup>. The Principles and Practise of Photography.**—Lenses, cameras; plates and films; exposure; development; printing; copying; positives; landscape, architectural, and scientific photography; speed work, color photography. Lectures; demonstrations; each student is required to produce a stated amount of work covering processes treated. (For advanced students who use photography in connection with their special subjects.) *I*, *II*; *Once a week*; (no credit). Mr. ELDREDGE

*Prerequisite:* Junior standing and the consent of the instructor.

### PHYSICAL EDUCATION FOR MEN

GEORGE A HUFF, B.S., *Director*

HARRY LOVERING GILL, *Associate, Track*

RALPH JONES, *Associate, Basketball*

<sup>1</sup> This course is continuous throughout the year.



ROBERT CARL ZUPPKE, Ph.B., *Associate, Football*

ARTHUR J SCHUETTNER, *Associate, Director of the Men's Gymnasium*

EDWIN JOHN MANLEY, *Instructor, Swimming*

ERVIN ARTHUR KNOTH, G.G., *Assistant*

DAVID MADISON BULLOCK, *Assistant*

**1-2. Gymnasium Practise.**—Two hours' gymnasium exercise each week. (Required of freshmen). First semester given in conjunction with 12 below. *I, II; (1).*

**1a. Personal Hygiene.**—Lectures by the Dean of Men. Required in conjunction with Physical Education 1. *Mr. SCHUETTNER, Mr. KNOTH*  
*Dean CLARK*

**3. Elementary Gymnastics, Boxing, Wrestling, and Fencing.**—Preparation of men for teaching of physical education. Three exercises a week. *I; (1).*

*Prerequisite:* Physical Education 1 and 2 and consent of the instructor.

**4. Advanced Physical Education.**—(Continuation of Course 3). Three exercises a week. *II; (1).*

*Prerequisite:* Physical Education 3 and consent of instructor.

### Summer Session Courses

#### A. ATHLETIC COACHING

**NOTE.**—Courses in Physical Education for men continue through only six (6) weeks.

**S 10. Baseball.**—Batting; base running; fielding each position; team work and coaching; rules; physical condition; indoor practise. Lectures; practical work. *(1½).*

*Director HUFF*

**S 11. Track and Field Athletics.**—Starting, sprinting, distance running, hurdling, high and broad jumping, pole vaulting, shot putting, hammer throw, and discus; preparing contestants for events; individual peculiarities; rules; physical condition; promotion, management, and officiating of games and meets. Lectures, practical work. *(1½).*

*Mr. GILL*

**S 12. Basketball.**—Coaching; passing; goal throwing; dribbling; team play; condition; the different styles of play used by leading coaches. Lectures; practical work. *(1½).*

*Mr. JONES*

**S 13. Football.**—Rules; offense and defense; generalship and strategy. Training; conditioning; equipment; kicking, forward passing; tackling dummy and charging sled; drills for linemen, ends, and backs; following the ball, interference, team work; fundamental plays, freak plays, signal systems. Lectures; practical work. *(1½).*

*Mr. ZUPPKE*

**S 14. Training.**—Training, massage, treatment of sprains, bruises; bandaging and first aid. Lectures; practical work. *(½).*

*Mr. JONES*

#### B. GYMNASTICS

**S 15. Calisthenics.**—Typical lessons for corrective and responsive work. Instruction given in free exercises. The course covers the use of wands, clubs and dumb-bells. *(¼).*

*Mr. SCHUETTNER*

**S 17. Elementary Gymnastics.**—Theory and practise in elementary exercises on mats, horse, horizontal bar, rings and parallel bars. Accuracy of form and execution emphasized. A large variety of rapid mass work adapted to the average class. *(½).*

*Mr. SCHUETTNER*

**S 18. Intermediate Gymnastics.**—More advanced work along the same lines as Course S 17. The laws of gymnastic progression, nomenclature and analysis of exercises, and the use of heavy apparatus. *(½).*

*Mr. SCHUETTNER*

S 19. **Advanced Gymnastics.**—Heavy apparatus. Advanced exercises on heavy apparatus; nomenclature; skill, form, and accuracy of execution. ( $\frac{1}{2}$ ). Mr. SCHUETTNER

S 21. **Gymnastic Dancing.**—(a) Elements of steps, simple steps and series dancing steps. (b) Practise teaching and more advanced steps. ( $\frac{1}{2}$ ). Mr. SCHUETTNER

S 23. **School Room Gymnastics.**—The possibilities of exercises for elementary grades and high school. Exercises suitable for school-room. Practise teaching. ( $\frac{1}{4}$ ). Mr. SCHUETTNER

## PHYSICAL EDUCATION FOR WOMEN

LOUISE FREER, A.B., B.S., *Director*

VERNA BROOKS, A.B., *Instructor*

NELLIE EILEEN BUSSELL, A.B., *Instructor*

ANNA LUE HUGHITT, *Instructor*

CAROLINE RUTH MORRIS, A.B., *Instructor*

MADGE RUSH, *Assistant*

RUTH HOOVER, *Student Assistant*

7a-7b. **Practise.**—Class work; light gymnastics; gymnastic dancing; games; personal hygiene; corrective work. (Required of freshmen). *I, II*; (1) [W7; 1Q, 2Q, 3Q; 3 quarter hours]. Miss FREER, Miss BROOKS, Miss HUGHITT, Miss MORRIS, Miss BUSSELL

8a-8b. **Practise.**—(Continuation of 7a-7b. Second year, elective.) *I, II*; (1) [W8; 1Q, 2Q, 3Q; 3 quarter hours].

Miss BROOKS, Miss HUGHITT, Miss MORRIS, Miss BUSSELL

*Prerequisite:* Physical Education 7a-7b.

9. **Hygiene.**—(Required of freshmen). *I*; (1) [W9; 1 quarter hour].

Miss FREER, Dean MASON

10a-10b. **The Teaching of Physical Education.**—(Third Year.) Theory and practise; practise teaching in the gymnasium and in public schools. Lectures and outside reading. *Two hours a week. I, II*; (1) [W10; 1Q, 2Q, 3Q; 3 quarter hours]. Miss BUSSELL

*Prerequisite:* One year of gymnasium work and psychology, or education; registration in Physical Education 7 or 8.

11a-11b. **Teachers' Course.**—(Fourth Year.) Massage, theory and practise; emergencies (including bandaging); anthropometry, practise work in measurements for physical examinations. *I, II*; [W11; 1Q, 2Q, 3Q]. Miss HUGHITT

*Prerequisite:* Physical Education 10.

12a-12b. **Esthetic and Interpretative Dancing.**—Exercises in technic. *I, II*; [W12; 1Q, 2Q, 3Q]. Miss BROOKS

*Prerequisite:* Physical Education 7a-7b.

13a-13b. **Advanced Esthetic and Interpretative Dancing.**—Technic; pantomime. *I, II*; [W13; 1Q, 2Q, 3Q]. Miss HUGHITT

*Prerequisite:* Physical Education 8 and 12.

14a-14b. **Swimming.**

## Summer Session Courses

Miss BUSSELL and Miss BOWER

S 1. **Principles and Methods of Physical Education.**—Lectures and practise. (1).

S 2. **Folk Dance and Singing Games.**—( $\frac{1}{2}$ ).

S 3. **Esthetic Dancing.**—(*No credit*).

S 4. **Swimming.**—Instructions in small groups. (*No credit*).

## PHYSICS

ALBERT PRUDEN CARMAN, D.Sc., *Professor, Head of the Department*

CHARLES TOBIAS KNIPP, Ph.D., *Professor, Experimental Electricity*

FLOYD ROWE WATSON, Ph.D., *Professor, Experimental Physics*

JAKOB KUNZ, Ph.D., *Associate Professor, Mathematical Physics*

WILLIAM FREDERICK SCHULZ, Ph.D., *Assistant Professor*

ELMER HOWARD WILLIAMS, Ph.D., *Assistant Professor*

SEBASTIAN KARRER, Ph.D., *Instructor*

WILLIAM HENRY HYSLOP, A.M., *Instructor*

CHARLES FRANCIS HILL, A.M., *Assistant*

CARL ELI PIKE,<sup>1</sup> B.S., *Assistant*

BIRD RICHARD STEPHENSON, A.M., *Assistant*

ELEANOR FRANCES SEILER, A.M., *Assistant*

WILLIAM WALTER MERRYMON, A.M., *Assistant*

CLAUDE JEROME LAPP, A.B., *Assistant*

Physics 7a-7b and 8a-8b are recommended to students not specializing in mathematics, chemistry, or engineering. For undergraduate students taking advanced work or a major in physics, the following outline of work is suggested:

Freshman year: Trigonometry (Math. 4) and Chemistry. Sophomore year: Physics 1a-1b, 3a-3b, or Physics 7a-7b, 8a-8b. Junior year: Physics 15, 16, 17, 23, or 24. Senior year: Physics 4a-4b, 14a-14b, 20, 22, 25, 30, or 31.

## Introductory Courses for Undergraduates

**1a-1b. General Physics.**—Lectures with class-room demonstration; recitations; written exercises. (For sophomores in engineering, mathematics, physics and chemistry.) *I*, (3): *II*, (2) [W1a, 1b; 1Q, 2Q; 3 quarter hours; 1c, 3Q].

Professor CARMAN, Assistant Professor SCHULZ, Mr. HYSLOP, Mr. STEPHENSON, Mr. MERRYMON, Mr. TURNQUIST, Mr. LAPP

*Prerequisite:* Registration in Physics 3a-3b; freshman mathematics.

**3a-3b. Physical Measurements.**—Laboratory experiments; quizzes in connection with Physics 1a-1b. *I*, *II*; (2) [W3a, 3b, 3c; 1Q, 2Q, 3Q; 2 quarter hours].

Assistant Professor SCHULZ, Mr. HYSLOP, Mr. STEPHENSON, Mr. MERRYMON, Mr. TURNQUIST, Mr. LAPP

*Prerequisite:* Physics 1a-1b or registration therein.

**7a-7b. General Physics.**—Lectures; class-room demonstrations; recitations. (For students in arts and science.) *I*, *II*; (2½).

Professor WATSON, Assistant Professor WILLIAMS, Mr. HILL, Miss SEILER

*Prerequisite:* Mathematics 4, or registration therein; registration in Physics 8a-8b.

**8a-8b. Introductory Laboratory Physics.**—Physical measurements. *I*, *II*; (½).

Assistant Professor WILLIAMS, Mr. HILL, Miss SEILER

*Prerequisite:* Registration in Physics 7a-7b.

**9a-9b. General Physics.**—Lectures; class-room demonstrations; recitations. (For students in architecture.) *I*, *II*; (2).

Professor WATSON, Assistant Professor WILLIAMS, Mr. HILL, Miss SEILER

*Prerequisite:* Mathematics 4; registration in Physics 10a-10b.

**10a-10b. Introductory Laboratory Physics.**—Physical measurements. *I*, *II*; (2).

Assistant Professor WILLIAMS, Mr. Hill, Miss SEILER

*Prerequisite:* Registration in Physics 9a-9b.

<sup>1</sup> Deceased, October 15, 1918.

## Intermediate Courses

**15. Electricity and Magnetism.**—For students in non-technical courses who wish a knowledge of electricity and magnetism beyond the course in general physics. Two recitations or lectures and one three-hour laboratory exercise weekly. Brooks and Poyser: *Electricity and Magnetism*. I; (3) [W15; 1Q, 2Q; 3 quarter hours]. Professor KNIPP

*Prerequisite:* Physics 1a-1b, 3a-3b, or 7a-7b, 8a-8b.

**16. Heat.**—Heat phenomena; mechanical theory of heat; thermodynamics. Laboratory experiments in thermometry, calorimetry, vapor pressure, expansion of bodies, transmission of heat, and mechanical equivalent, and method of measurement of high temperatures. I; (3) [W16; 1Q; 2 quarter hours]. Professor WATSON

*Prerequisite:* Physics 1a-1b, 3a-3b; or 7a-7b, 8a-8b.

**17. Light.**—Reflection, refraction, interference, diffraction, and polarization; optical instruments; lectures and laboratory. (For students in general physics, but also adapted to those who wish to learn the use of optical instruments.) Houstoun: *Treatise on Practical Light*. II; (3) [2Q; 3 quarter hours]. Assistant Professor SCHULZ

*Prerequisite:* Physics 1a-1b; 3a-3b; or 7a-7b.

**[18. Teachers' Course.]**—Text-books, reference books, laboratory manuals, apparatus ordering, and methods of conducting work. Manipulative work with glass and apparatus. Selected topics in advanced general physics. II; (3) [2Q; 2 quarter hours].

Professor WATSON

*Prerequisite:* A course in general physics, or experience in teaching.]

## Courses for Undergraduates and Graduates

**4a-4b. Electrical and Magnetic Measurements.**—First semester: measuring very high and very low resistances; aperiodic and ballistic; galvanometers; electric currents and quantity; capacities. Second semester: absolute determination of capacity; the damping factor of a ballistic galvanometer; circuits containing resistance and self-induction; measurement of self and mutual induction; magnetic properties of iron; plotting of curves; hysteresis losses. Potentiometers. I, II; (2) [W4a, 4b, 4c; 1Q, 2Q; 2 quarter hours].

Professor KNIPP, Dr. KARRER

*Prerequisite:* Physics 1a-1b, 3a-3b; or 7a-7b, 8a-8b; Mathematics 7, 9.

**14a. Introduction to Theoretical Physics.**—Motion, mass, and force. (For the student of general science as well as for students of physics and mathematics.) Recitations; problems; lectures. Jean: *Theoretical Mechanics*. I; (3) [W14a, 1Q, 3 quarter hours; 14b, 2Q, 2 quarter hours].

Professor CARMAN

*Prerequisite:* Physics 1a-1b, 3a-3b; or 7a-7b, 8a-8b; Mathematics 8 or 7 and 9.

**20. Light.**—Special phenomena; modern theories; readings in texts of Drude, Wood, and Preston. Lectures; recitations. I, (2). Assistant Professor SCHULZ

*Prerequisite:* Physics 1a-1b, 3a-3b; or 7a-7b, 8a-8b; Mathematics 7 and 9, or 8.

**22. Advanced Light Measurements.**—Wavelength determinations with gratings, echelons, and interferometers, spectroscopic work, Zeeman effect, polarimetric analysis, resolving power of instruments, photometry and spectrophotometry. I; (2-5)<sup>1</sup> [3Q; 3 quarter hours]. Assistant Professor SCHULZ

*Prerequisite:* Physics 1a-1b, 3a-3b; or 7a-7b, 8a-8b.

<sup>1</sup> In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which *he* intends to take the course; e. g., *not* 2-5, but 2, or 3, or 4, or 5.

**23. Sound.**—Origin, propagation, velocity, interference, and diffraction; vibrations of strings and organ pipes; music and speech. Lectures, recitations, laboratory. *II*; (3).

Professor WATSON

*Prerequisite:* Physics 1a-1b, 3a-3b; or 7a-7b, 8a-8b.

**24. Properties of Matter.**—Gravitation, elasticity, capillarity, and other general properties of matter. Poynting and Thomson: *Properties of Matter*. Recitations; lectures. *II*; (2) [2Q; 3 quarter hours].

Assistant Professor WILLIAMS

*Prerequisite:* Physics 1 and 3 or 7 and 8; Mathematics 7 and 9, or 8.

**27. Fundamental Physical Measurements.**—Measurements of length, mass, time, and of determinations of gravitation, elasticity, surface tension, viscosity. Laboratory. *II*; (1) [2Q, 3Q; 1 quarter hour].

Assistant Professor WILLIAMS

*Prerequisite:* Course in general physics.

**30. Introduction to Theoretical Electricity.**—Electrical and magnetic phenomena discussed with calculus methods. Magnetism, electrostatics, electrolysis, thermoelectricity, electromagnetics, varying currents, alternating currents, units, electromagnetic radiation, conduction through gases, radioactivity, electrons. (For advanced students in physics, chemistry, mathematics, and engineering.) Lectures; recitations; demonstrations. Starling: *Electricity and Magnetism*. *II*; (3) [2Q, 3Q; 3 quarter hours].

Professor KNIPP

**31a-31b. Special Problems in Advanced Physical Measurements.**—*I, II*; (2 or 3)<sup>1</sup>.

Professor CARMAN, Professor KNIPP, Professor WATSON, Assistant Professor SCHULZ, Dr. WILLIAMS

### Courses for Graduates

The prerequisite for graduate work in physics is a college course in general physics with a year's laboratory course in introductory physical measurements. The student who is to do major work in physics should also have had additional courses in physics or teaching experience, unless the training in his minor subjects, mathematics or chemistry, has been strong and complete. He should also have a knowledge of French and German sufficient to use references in these languages. The courses named below are those open for candidates for the Master's or Doctor's degree. A large part of the last year's work of the candidate for the Doctor's degree is investigational in either experimental or theoretical physics. In addition to these major graduate courses, the courses in elementary dynamics, heat, light, electrical measurements, and introductory electrical theory are arranged with certain additions for graduate credit. The "intermediate" courses on heat, light and electricity and magnetism (Physics 15, 16, 17, 24) may be offered by students making a minor in physics, and with certain limitations by students in their first year of graduate work for major credit.

**104a-104b. Selected Problems in Electrical Measurements.**—First semester: very high and very low resistances; galvanometers; damping factor and critical damping resistance; electric current and quality; capacities; absolute determination of capacity; Dolezalek quadrant electrometer; dielectric constants; the measurement of  $v$  and  $e/m$  for cathode rays; positive electricity; potentiometer. Second semester: properties of iron, hysteresis curves and losses. Recommended for graduate students in chemistry. *I, II*; ( $\frac{3}{4}$  unit) [W104a; 1Q, 2Q;  $\frac{3}{4}$  unit].

Professor KNIPP

**121. Recent Advances in Physics and the Electron Theory.**—Occurrence of electrons; properties; gaseousion; determination of  $e/m$  and  $v$  of the electron and of the ion; positive rays in gas analysis; color effects of electrons, of ions, and of retrograde rays in residual

<sup>1</sup>In registering for a course with variable credit hours, a student must put down on his study-list *not* the possible hours, as shown here, but the number of hours for which *he* intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

hydrogen, helium, neon, and argon; determination of the elementary charge of the electron by the fog method, by radioactivity. *II; ( $\frac{1}{4}$  unit).* Professor KNIPP

123. **Sound.**—Wave motion; forced vibrations; velocity and energy relations of sound waves; resonance; vibrations of strings and organ pipes. *Three times a week; II; ( $\frac{3}{4}$  unit).* Professor WATSON

124. **Conduction of Electricity Through Gases.**—Discharge phenomena. In the second semester an original problem is assigned. Laboratory, collateral reading; discussion. *Three times a week; I, II; (1 to 2 units).* Professor KNIPP

126. **Physics Colloquium.**—Weekly meetings of the instructors and advanced students of the department for the presentation and discussion of papers on current problems in physics. Attendance is expected of all graduate students. *Once a week; I, II; (no credit).*

127a. **Problems of Present Theoretical Investigations in Physics.**—Fundamental laws of nature; least action; equipartition of energy; entropy and probability; laws of radiation the energy quantum. *I, II; ( $\frac{1}{2}$  unit).* Associate Professor KUNZ

[127b. **Electron Theory.**—(Seminar.) The Zeeman and corresponding phenomena; electro and magneto-optics; spectra; dispersion; photoelectricity; phosphorescence; chemical action of light and electrons; metals and magnetism; the atom. (Of special interest to students in chemistry and general science.) *Twice a week; II; (1 unit).* Not given, 1918-19.]

131. **Investigation of Special Problems.**—Advanced laboratory or design and calculation. A problem worked out with the advice and direction of the instructor. *Two to four times a week; I, II; (1 to 2 units).*

Professor CARMAN, Professor KNIPP, Professor WATSON, Associate Professor KUNZ, Assistant Professor SCHULZ, Dr. WILLIAMS

132. **Mathematical Physics.**—Special phases of theoretical physics.

(a). **Dynamics.**—Newton's equations, general methods of integration, potential theory, potential of the ellipsoid, celestial mechanics, least constraint, virtual work; D'Alembert's and Hamilton's principles; special problems of hydrodynamics and of electricity. *Three times a week; I, II; (1 unit)* [W132a; 1Q, 2Q; 1 unit].

Associate Professor KUNZ

[(b). **Electrodynamics.**—The potential theory; electrical and magnetic polarization; spherical harmonics; images and inversion; conjugate functions; elliptic coordinates and integrals; magnetic actions of currents; coefficients of capacity; self and mutual induction; absolute measurements; Maxwell's theory; optics. Lectures; collateral reading. *Four times a week; I, II; (1 unit).* Not given, 1918-19.]

[(c). **Thermodynamics and Kinetic Theory of Matter.**—The two fundamental principles; chemical equilibrium; the Nernst theorem; the direct method of Carnot's cycle; thermodynamic potentials and the derived functions; Maxwell's theory of velocities in a gas; Boltzman's H theory; radiation; Planck's theory of quanta. *I, II; (1 to 2 units).* Not given, 1918-19.]

133. **Seminar.**—*Three or five times a week; I, II; (1 to 3 units).* Professor CARMAN, Professor KNIPP, Professor WATSON, Associate Professor KUNZ, Assistant Professor SCHULZ

### Summer Session Courses

S 7 I. **General Physics. Part I.**—Mechanics; motion; forces and their effects; equilibrium. Text: Kimball's *College Physics*. ( $1\frac{1}{2}$ ).

Professor WATSON, Mr. STEPHENSON

*Prerequisite:* Plane geometry and high-school algebra; registration in Physics S 8 I. Plane trigonometry desired.

*Equivalent:* S 7 (I, II, III) together with S 8 (I, II, III) are equivalent to Physics 7a-7b, 8a-8b for the college year.

**S 8 I. Introductory Laboratory Physics. Part I.**—Physical measurements on mechanics, properties of matter, to accompany S 7 I. Text: Schulz's *Laboratory Manual*. (1½). Dr. KARRER, Mr. HILL

*Prerequisite:* Registration in Physics S 7 I.

*Equivalent:* See S 7 I.

**S 7 II. General Physics, Part II.**—Electricity and magnetism. Text: Kimball's *College Physics*. (1½). Dr. WILLIAMS

*Prerequisite:* See S 7 I.

*Equivalent:* See S 7 I.

**S 8 II. Introductory Laboratory Physics, Part II.**—Laboratory to accompany S 7 II. Text: Schulz's *Laboratory Manual*. (1½). Dr. WILLIAMS, Mr. STEVENSON

*Prerequisite:* Registration in S 7 II.

*Equivalent:* See S 7 I.

**S 7 III. General Physics, Part III.**—Heat, light, and sound. Text: Kimball's *College Physics*. (1½). Professor WATSON, Mr. STEPHENSON

*Prerequisite:* Same as S 7 I.

*Equivalent:* See S 7 I.

**S 8 III. Introductory Laboratory Physics, Part III.**—Laboratory to accompany S 7 III. Text: Schulz's *Laboratory Manual*. (1½). Dr. KARRER, Mr. HILL

*Prerequisite:* Registration in Physics S 7 III.

*Equivalent:* See S 7 I.

**S 4. Electrical and Magnetic Measurements.**—Discussions, recitations, and reports. 4 three-hour laboratory periods, arrange. (2). Dr. KARRER

*Prerequisite:* A course in general physics and calculus.

*Equivalent:* First semester of Physics 4.

**S 16. Heat.**—Fundamental heat phenomena; thermometry; calorimetry; expansion; vapor pressure. Text: Edser's *Heat, for Advanced Students*. (1½).

Dr. WILLIAMS, Mr. STEPHENSON

**S 18. Teachers' Course.**—(1) Discussions of methods of organizing laboratory work; quizzes; demonstrations; criticisms of high-school text-books; principles of selecting and ordering apparatus. (2) Practical laboratory manipulation; glass blowing, minor repairs of apparatus, preparation of direction sheets, etc. (1). Professor WATSON

**S 21. Recent Advances and Applications in Physics.**—Popular experimental lectures on recent advances and applications of physics. Applications which affect our present war conditions will be given special consideration. The lectures will be public and may be attended by those interested. One-half hour credit may be obtained by presenting brief abstracts of the lectures, and by writing a short examination on the main facts presented. The topics and dates of lectures will be announced later. (½).

Professor WATSON and Dr. KARRER in charge

### Courses for Undergraduates and Graduates

**S 31. Special Problems in Advanced Physical Measurements.**—Arrange time. (1 or 2). Professor WATSON, Dr. WILLIAMS

*Prerequisite:* A course in general physics, calculus.

## Courses for Graduates Only

**S 126. Physics Colloquium.**—Biweekly meetings of the instructors and advanced students of the department for the presentation and discussion of papers on current problems. Attendance is expected of all graduate students. Undergraduates who are especially interested in physics, as teachers or otherwise, are advised to attend.

Professor WATSON, Dr. KARRER

**S 131. Investigation of Special Problems.**

Professor WATSON, Dr. WILLIAMS

**S 133. Seminar and Thesis.**

Professor WATSON

## PHYSIOLOGY

WILLIAM EDWARD BURGE, Ph.D., *Assistant Professor*

ALMA JESSIE NEILL, A.M., *Assistant*

LILLIAN RUTH JOHNSTON, A.B., *Assistant*

**Major:** 20 hours made up from any courses offered in the department, exclusive of Physiology 4.

**Minors:** 20 hours in bacteriology, botany, chemistry, and zoology.

**1. Histology.**—A microscopic study of the fundamental mammalian tissues. Continued in Physiology 8. *I*; (3) [W1; 1Q; 3 quarter hours].

Assistant Professor BURGE, Miss NEILL

*Prerequisite:* One year of university work, including five hours in botany or zoology or equivalent.

**2. Physiology of Circulation, Respiration, Digestion, and Excretion.**—Lectures, laboratory, and demonstrations. *II*; (3) [3Q; 3 quarter hours].

Assistant Professor BURGE, Miss NEILL

*Prerequisite:* One year of university work.

**3. Elementary Experimental Physiology.**—Nerve and muscle. Lectures, demonstrations, and laboratory. *I*; (2) [W3; 1Q; 2 quarter hours].

Assistant Professor BURGE, Miss NEILL

*Prerequisite:* One year of university work.

**4. General Physiology.**—Lectures, demonstrations, recitations, and laboratory. *I, II*; (5) [W4; 1Q, 2Q; 5 quarter hours. 3Q; 3 quarter hours].

Assistant Professor BURGE, Miss NEILL, Miss JOHNSTON

*Prerequisite:* One year of university work including five hours in botany or zoology, and five hours in chemistry.

**5. Physiology of Nutrition.**—Utilization of food material by the body in health under various conditions and in disease. Lectures and demonstrations. *II*; (2) [3Q; 2 quarter hours].

Assistant Professor BURGE

*Prerequisite:* Physiology 4 or equivalent.

**6. Physiology of the Nervous System.**—The function of the principal motor and sensory tracts of the mammal. *I*; (3) [W6; 1Q; 3 quarter hours].

Assistant Professor BURGE and Miss JOHNSTON

*Prerequisite:* One year of university work.

**7. Investigation.**—*I* or *II*; (5) [W7; 1Q, 2Q, 3Q; 5 quarter hours].

Members of the staff

*Prerequisite:* Consent of the department.

**8. Histology.**—Microscopic anatomy of the organs. Lectures and laboratory. *II*; (3) [3Q; 3 quarter hours].

Assistant Professor BURGE, Miss NEILL

*Prerequisite:* Physiology 1 or equivalent.



**9. Physiology of the Special Senses.**—Lectures, laboratory, and demonstrations. *II*; (2) [3Q; 2 quarter hours]. Assistant Professor BURGE, Miss JOHNSTON

*Prerequisite:* Physiology 6 or equivalent.

**10. Physiological Anatomy.**—A study of the organs of a mammal with special reference to function. Lectures, laboratory, and demonstrations. *II*; (3) [3Q; 3 quarter hours]. Miss NEILL

*Prerequisite:* One year of university work.

**11. Physiology of the Glands of Internal Secretion.**—Lectures, laboratory, and demonstrations. *II*; (3) [3Q; 3 quarter hours].

Assistant Professor BURGE, Miss NEILL, Miss JOHNSTON

*Prerequisite:* One year of university work.

### Courses for Graduates

**100. Physiology of Secretion and Excretion.**—A study in the method of procedure in collecting the various secretions of mammals and a study of the factors controlling the flow of these juices. *Time to be arranged.* *I, II*; (1 unit) [W100; 1Q, 2Q, 3Q; 1 unit].

Members of the staff

**101. Journal Club.**—Review of literature and discussion of investigation being carried on in the department. *Time to be arranged.* *I, II*; ( $\frac{1}{4}$  unit) [W101; 1Q, 2Q, 3Q;  $\frac{1}{4}$  unit].

Members of the staff

**102. Research.**—*Three times a week. Time to be arranged.* *I, II*; (1 or 2 units) [W102; 1Q, 2Q, 3Q; 1 or 2 units].

Members of the staff

### POLITICAL SCIENCE

(See also ECONOMICS, HISTORY, and SOCIOLOGY.)

JAMES WILFORD GARNER, Ph.D., *Professor*

JOHN ARCHIBALD FAIRLIE,<sup>1</sup> Ph.D., *Professor*

JOHN MABRY MATHEWS, Ph.D., *Associate Professor*

ROBERT EUGENE CUSHMAN, Ph.D., *Associate*

*Cooperating:*

HENRY WINTHROP BALLANTINE, *Professor of Law and Dean of the College of Law*

**Major:** Twenty hours from any courses offered by the department. A major may include three hours of constitutional history (History 4 and 14).

**Minors:** Twenty hours, selected from two of the following subjects: history, economics, law, sociology, philosophy, and education.

### Courses for Undergraduates

**NOTE.**—Courses 1a, 1b, and 1c give a survey of national, state, and local government in the United States, and should be taken by students specializing in political science. Course 1a is open only to students in the colleges of Engineering and Agriculture who desire an introductory course in American government.

**1a. American National Government.**—Historical development, organization, powers, limitations, and practical working of the national government of the United States. *I*; (3) [W1a; 1Q; 3 quarter hours].

Associate Professor MATHEWS

**1b. State Government.**—Powers, obligations, and rights of the states in the Federal Union; formation and admission of states; development of state constitutions; organiza-

<sup>1</sup> On leave.

tion of state and local government; political methods. (A continuation of Political Science 1a; may be taken independently.) *II*; (3) [2Q; 3 quarter hours].

Associate Professor MATHEWS

*Prerequisite:* Thirty hours of university work.

NOTE.—Students may not take both 1b and 16 for more than a total of four hours' credit.

**16. Government in Illinois.**—The commonwealth and the nation; constitutional development; organs of state government and their work; organization of the local governments and their functions; methods and agencies of popular control in public affairs; contemporaneous problems. *II*; (2) [2Q; 2 quarter hours].

Professor GARNER, Associate Professor MATHEWS

*Prerequisite:* Thirty hours of university work.

**1c. Municipal Government.**—The growth of cities; their legal and social status; municipal organization in the United States, including mayor and council, commission, and city manager plans; municipal organization abroad; municipal functions. *III*; (3) [3Q; 3 quarter hours].

Professor GARNER, Associate Professor MATHEWS

*Prerequisite:* Thirty hours of university work.

### Courses for Advanced Undergraduates and Graduates

NOTE.—Junior standing is required for admission to the following courses:

**5. Constitutional Law of the United States.**—The judicial interpretation of the constitution. Judicial power to declare laws unconstitutional; separation of governmental powers; relation of state and national governments; national taxation; control of interstate commerce; protection of civil and political rights (due process of law); jurisdiction of the courts. *I*; (3) [W5; 1Q; 3 quarter hours].

Dr. CUSHMAN

*Prerequisite:* Political Science 1; junior standing.

**6. International Law.**—The development, nature, source, and present status of the law of nations; the doctrine of intervention; the laws of war and peace; the rights and duties of neutrals; the arbitration movement. Lectures; assigned readings; reports. *I, II*; (3) [W6; 1Q, 2Q; 3 quarter hours].

Professor GARNER

*Prerequisite:* Graduate or senior standing, or junior standing with six hours of history and five hours of political science.

**7. American Diplomacy.**—The genesis and present organization of the Department of State; the diplomatic service; the treaty making power; the methods and traditional principles of the foreign policy of the United States; diplomatic controversies with foreign powers; the United States as a world power. *III*; (3) [3Q; 3 quarter hours].

Associate Professor MATHEWS

*Prerequisite:* Political Science 1 or History 3a-3b; junior standing.

**9. Principles of Jurisprudence.**—The nature and sources of law; development and comparison of the Roman and English legal systems; English law in the United States; classification of law. *II*; (2) [2Q; 2 quarter hours].

Professor BALLANTINE

*Prerequisite:* Political Science 1 or its equivalent; junior standing.

**11. Constitutional Aspects of Social and Industrial Problems.**—The nature of the police power; legislation concerning public health, order, and safety; constitutionality of labor legislation; control of combinations of capital; regulation of public service companies. *II*; (3) [2Q, 3Q; 3 quarter hours].

Dr. CUSHMAN

*Prerequisite:* Six hours of political science or economics; junior standing.

**22. Continental European Governments.**—The political systems of France, Germany, Austria-Hungary, Italy, and Switzerland; constitutional beginnings; political organiza-

tions; methods of legislation and administration; constitutional guaranties for the protection of individual rights. *II*; (3) [3Q; 3 quarter hours]. Professor GARNER

*Prerequisite:* Open to graduate students and seniors, who have had six hours in political science. History 20a-20b and Political Science 21 recommended.

**35. Legal Problems of the City.**—Legal status of the city; powers of the city in the matter of police regulations, taxation, special assessments, streets, public utilities, and city planning; municipal contracts and liabilities. *II*; (2) [3Q; 2 quarter hours.]

Dr. CUSHMAN

*Prerequisite:* Senior standing, or junior standing and one course in political science or major work in municipal and sanitary engineering.

**36a-36b. Thesis Course.**—Research work for candidates for honors and other seniors. *I, II*; (2). *Time to be arranged.*

**40. Military Law.**—Scope of military authority under state and federal constitutions; courts-martial and their procedure; Articles of War and military discipline; war legislation; lectures and assigned readings. *I*; (2) [W40; 1Q; 2 quarter hours].

Professor BALLANTINE

*Prerequisite:* Sophomore standing.

### Courses for Graduates

**102. The Nature of the State.**—Principles, methods, and nature of political science; the origin, attributes, forms, and functions of the state; sovereignty and liberty; citizenship and nationality; constitutions, their nature and forms; principles of legislative, executive, and judicial organization. *Twice a week; I*; [W102; 1Q, 2Q; 2 units].

Professor GARNER

**103. Seminar in Political Science and Public Law.**—Special problems; reports; discussions and criticism. The research work of candidates who are writing theses is under the direction of some instructor to whom they report frequently. *Once a week; I, II*; [W103; 1Q, 2Q, 3Q].

Members of the department

**106. International Law as Applied During the European War.**—Causes of the war; treatment of alien enemies; contraband; blockades; transfers of flag; reprisals; military government of occupied territory; contributions and requisitions; rights and duties of neutrals. *Three times a week; II*; (1 unit) [3Q; 1 unit].

Professor GARNER

**107. Foreign Relations of the United States.**—Studies in the principles and practises of American foreign policy. *Once a week; II*; (1 unit) [3Q; 1 unit].

Associate Professor MATHEWS

**[113. State Government and Administration.**—Studies in the organization and methods of state governments in formulating and executing public policies; investigation of problems. Different topics in succeeding years. *Twice a week; II*; (1 unit). Not given, 1918-19.

Associate Professor MATHEWS]

### PSYCHOLOGY

MADISON BENTLEY,<sup>1</sup> Ph.D., *Professor*

CHRISTIAN ALBAN RUCKMICH, Ph.D., *Assistant Professor, Acting Head of Department*

CARL RAHN, Ph.D., *Associate*

COLEMAN ROBERTS GRIFFITH, A.B., *Assistant*

MYRON ARTHUR MYERS, B.S., *Assistant*

HILDA KOHL,<sup>2</sup> *Student Assistant*

HARRIETT ANDERSON,<sup>3</sup> *Student Assistant*

<sup>1</sup> On leave for military service.

<sup>2</sup> First quarter.

<sup>3</sup> Second and third quarter.

**Major:** Twenty hours chosen from courses announced by the department, except that six hours may be chosen from one or more of the following subjects: Philosophy 1, 2, 3, 4; Physics 1a-1b, 3a-3b, 7a-7b; Zoology 2, 5, 9, 15; and Animal Husbandry 30.

**Minors:** Twenty hours chosen from education, genetics, philosophy, physics, physiology, sociology, and zoology.

### Laboratories

The departmental laboratories occupy twenty rooms in University Hall. They make provision for research, undergraduate instruction in drill-courses, demonstrations in the lecture-room, the testing of mental capacity and of mental defect, and the study of the animal mind. Besides standard equipment in all branches, the laboratories contain special apparatus for spectroscopic and chronographic methods and for the investigation of memory and association. Provision is made for research in psychological optics and acoustics. The work-shop, which is in charge of a skilled mechanic, is equipped for the construction of delicate apparatus and of instruments of precision. The departmental library contains complete files of foreign and American journals and a working collection for experimental and historical study. The history of the science and of its antecedents in physiognomy, phrenology, and anthropology is further provided for in the departmental museum, which contains a large collection of casts, portraits, documents, and other objects of human and of psychological interest.

### Courses for Undergraduates

**1. Introduction to Psychology.**—The facts and laws of mind. Sensation and image, perception, attention, memory, emotion, action, and thought. Experimental methods and their results are illustrated in lecture by demonstrations. This course is preliminary to all other work of the department. Lectures; sectional meetings. *I*; (3) [W1, 1Q, 3 quarter hours; 1, 2Q, 4 quarter hours].

Assistant Professor RUCKMICH, Dr. RAHN, and assistants

*Prerequisite:* One year of university work.

**2. General Psychology.**—Mental inheritance, habit, custom, and fashion; the relations of psychology to the biological and social sciences; comparative and genetic psychology, and the psychology of the abnormal; applications of psychology to the arts and professions. *II*; (3) [3Q; 4 quarter hours].

Assistant Professor RUCKMICH, Dr. RAHN, and assistants

*Prerequisite:* Physiology 1.

**3. Laboratory Practise (Elementary).**—Classical experiments in the fields of sensation, feeling, attention, and action. A drill course in scientific method. *I* or *II*; (2) [W3; 1Q, 2Q, 3Q; 3 quarter hours]. Assistant Professor RUCKMICH, Dr. RAHN, and assistants

*Prerequisite:* Psychology 1.

### Courses for Advanced Undergraduates and Graduates

**5. Comparative Psychology.**—Mind in animal forms; the psychological implications of organic evolution; a comparison of human and animal minds; criticism of current literature. (Recommended to students who intend to elect advanced courses in either animal psychology or in the study of behavior.) Lectures; laboratory. *I*; (2) [W5; 1Q, 3Q; 3 quarter hours].

Dr. RAHN and assistants

*Prerequisite:* Psychology 1.

**6. Comparative Psychology (Advanced Laboratory).**—Individual studies in animal psychology. *II*; (2-4)<sup>1</sup> [2Q; 2-3 quarter hours<sup>1</sup>]. Dr. RAHN

*Prerequisite:* Psychology 1 and 5.

**9. Physiological Psychology.**—Correlations between the structure and functions of the nervous system and the phenomena of human consciousness; a formulation of the problem of psychophysical relationship. Lectures; readings; discussions. *II*; (3) [3Q; 3 quarter hours]. Dr. RAHN

*Prerequisite:* Psychology 1 and 2, or 1 and 3, and laboratory training in one of the biological sciences.

**10. Translation of Psychological Treatises.**—An attempt will be made to acquaint the student with psychological terminology, especially in standard French and German works in psychology, and to gain a reading knowledge of foreign publications in the original form. *I*; (1-2)<sup>1</sup> [W10; 1Q, 2Q; 1-2 quarter hours<sup>1</sup>].

Assistant Professor RUCKMICH, Dr. RAHN

*Prerequisite:* Psychology 1, and consent of the instructor.

**12-13. Minor Problems (Advanced Laboratory).**—The application of methods suitable to new problems. *I, II*; (2-5)<sup>1</sup> [W12, 1Q, 2-5 quarter hours<sup>1</sup>; 13, 2Q, 3Q, 2-5 quarter hours<sup>1</sup>]. Assistant Professor RUCKMICH, Dr. RAHN, and assistants

*Prerequisite:* Psychology 1, 2, 3.

**14. Social Psychology.**—The social consciousness and the collective mind; analysis of the conditions upon which the social consciousness depends; perceptual, ideational, and emotional factors in the social consciousness; the genetic development of the collective mind as revealed in tradition and institutions. *I*; (3) [W14; 1Q; 3 quarter hours].

Dr. RAHN

*Prerequisite:* Psychology 1 and one other course.

**16. Genetic Psychology.**—Instinctive responses, formation of habits, and development of mental functions in the child from birth to maturity. Lectures; collateral reading; discussions. *I*; (2) [2Q; 3 quarter hours]. Assistant Professor RUCKMICH

*Prerequisite:* Psychology 1.

**17. The History of Psychology.**—The rise and development of the science of psychology. Lectures and readings in the sources. *II*; (2) [3Q; 3 quarter hours].

Assistant Professor RUCKMICH

*Prerequisite:* Psychology 1, 2, and one other course.

**18. Psychological Problems of the War.**—Theoretical discussion of instinctive basis, of general and pathological effects on individuals and on social groups, and of the results of special investigations made with reference to military problems and conditions, such as the mental examination of recruits, the rehabilitation of returned soldiers, orientation and the localization of sound. Lectures; collateral reading; discussions. *I*; (2) [W18; 1Q; 3 quarter hours]. Assistant Professor RUCKMICH

*Prerequisite:* Psychology 1 and one other course.

**[20. Systematic Psychology.**—Psychological analysis and construction. Lectures and essays. (For graduates and advanced undergraduates.) *II*; (3). Not given, 1918-19. Professor BENTLEY]

**21-22. Special Studies.**—Individual investigations, for advanced students, in the form of essay or of experiment. *I, II*; (3) [2Q, 3Q; 2-5 quarter hours<sup>1</sup>].

Assistant Professor RUCKMICH, Dr. RAHN

*Prerequisite:* Psychology 12 or 13.

<sup>1</sup>In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which *he* intends to take the course; e. g., *not* 1-2, but 1, or 2.

**24. Psychology of Religion.**—An analytic study of the religious consciousness and behavior. *II*; (2) [2Q; 3 quarter hours]. Dr. RAHN

*Prerequisite:* Psychology 1.

### Courses for Graduates

**103. Research.**—Experimental and historical investigations. *I, II*; ( $\frac{1}{2}$  to 2 units) [W103; 1Q, 2Q, 3Q;  $\frac{1}{2}$  to 2 units]. Assistant Professor RUCKMICH, Dr. RAHN

**105. Seminar.**—Discussion of current topics in their historical setting. *I, II*; ( $\frac{1}{2}$  unit) [W105; 1Q, 2Q, 3Q;  $\frac{1}{2}$  unit]. Assistant Professor RUCKMICH

### Summer Session Courses

**S 1. Introduction to Psychology.**—The facts and laws of mind. Sensation and image, perception, attention, memory, emotion, action, and thought. Lectures, illustrated with experimental demonstrations, and discussions. ( $2\frac{1}{2}$ ). Assistant Professor RUCKMICH

*Prerequisite:* Sophomore standing or consent of the instructor.

**S 3. Elementary Laboratory Practise.**—The standard experiments in the fields of sensation, feeling, attention, perception, memory and association, and action. A drill course in introspection under experimental control. ( $1\frac{1}{2}$ ). Assistant Professor RUCKMICH

*Prerequisite:* Sophomore standing or consent of the instructor; registration in S 1 or previous instruction in its equivalent is desirable.

**S 18. Psychological Problems of the War.**—Problems of especial significance in connection with the war and the result of investigations made with reference to military conditions, such as: the selection and classification of recruits, the localization of sound, the examination of the peculiar effects of high altitudes on memory, the rehabilitation of disabled soldiers, the study of psychopathological cases, and the discussion of phases of social psychology. Lectures and discussions. (1). Assistant Professor RUCKMICH

**S 21. Special Studies.**—Individual investigations, for advanced students, in the form of essay or experiment. Some small problem will be offered for investigation in a field in which the student is interested and opportunity will be afforded to gain practise in observing in other researches under way. ( $1-2$ )<sup>1</sup>. Assistant Professor RUCKMICH

*Prerequisite:* The equivalent of Psychology 1 and consent of the instructor.

### PUBLIC SPEAKING

(See under THE ENGLISH LANGUAGE AND LITERATURE.)

### RAILWAY ADMINISTRATION

(See TRANSPORTATION.)

### RAILWAY ENGINEERING

EDWARD CHARLES SCHMIDT,<sup>2</sup> M.E., *Professor*

JOHN McBEATH SNODGRASS, B.S., *Associate Professor, Railway Mechanical Engineering,*  
*Acting Head of the Department*

EVERETT E KING, A.B., M.S., M.C.E., *Professor, Railway Civil Engineering*

JAMES THERON ROOD, Ph.D., *Professor, Railway Electrical Engineering*

HAROLD HOUGHTON DUNN, M.S., *Research Associate, Engineering Experiment Station*

<sup>1</sup>In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which *he* intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

<sup>2</sup>Resigned.

Railway Civil Engineering—Courses 31-51.

Railway Electrical Engineering—Courses 60-68.

Railway Mechanical Engineering—Courses 1-10.

Common to all groups—Courses 25, 98, and 99.

Graduate Courses—Courses 100-110.

**2. Locomotive Design.**—Calculations and designs of engine and boiler details; current standards and proportions. Drafting room systems. *I*; (3) [W2; 1Q, 2Q; 3 quarter hours]. Associate Professor SNODGRASS

*Prerequisite:* Mechanical Engineering 12, 62; Railway Engineering 6.

**5. Railway Laboratory.**—Locomotive testing; experimental work with electric and steam railway test cars, brakeshoe testing machine, drop testing machine, and air-brake apparatus. *I*; (3) [W5; 1Q; 3 quarter hours]. Mr. DUNN

*Prerequisite:* Railway Engineering 6; Mechanical Engineering 12, 62.

**6. Locomotives.**—Mechanics; performance; design. *II*; (4) [W6, 1Q, 2 quarter hours; 3Q, 4 quarter hours]. Associate Professor SNODGRASS

*Prerequisite:* Theoretical and Applied Mechanics 21, 29; registration in Mechanical Engineering 12 and 62.

**7. Advanced Design.**—Problems in locomotive and car design. *II*; (3) [3Q; 3 quarter hours]. Associate Professor SNODGRASS

*Prerequisite:* Railway Engineering 2.

**8. Railway Laboratory.**—Investigation of train resistance and locomotive tractive effort by the use of the railway test car. Analysis of the results and their application to the problems of tonnage rating. *II*; (2) [2Q, 3Q; 3 quarter hours]. Mr. DUNN

*Prerequisite:* Railway Engineering 5.

**9. Seminar.**—Discussion of current topics and review of railway journals; assigned topics and reports. *I*; (1) [2Q, 3Q; 1 quarter hour]. Associate Professor SNODGRASS

*Prerequisite:* Open to seniors in railway courses only.

**25. Railway Development.**—History and organization of steam and electric railways; statistics; costs. *I*; (3) [2Q; 3 quarter hours].

Professor KING, Professor ROOD, Associate Professor SNODGRASS

*Prerequisite:* Open to juniors in railway courses only.

**31. Railway Yards and Terminals.**—Theory of design; arrangement of grades in gravity yards; problems. *II*; (3) [3Q; 5 quarter hours]. Professor KING

*Prerequisite:* Civil Engineering 51.

**32. Railway Construction.**—Design of railway structures; cost analysis; estimates of cost, complete working drawings, contracts and specifications for assigned problems in design. *I*; (3) [W32; 1Q; 3 quarter hours]. Professor KING

*Prerequisite:* Civil Engineering 51.

**33. Economic Theory of Railway Location.**—Influence of volume of traffic, alignment, and gradient on operating expenses; locomotive and grade problems; relocation of existing lines. *II*; (4) [2Q; 5 quarter hours]. Professor KING

*Prerequisite:* Civil Engineering 51; Theoretical and Applied Mechanics 20, 21.

**34. Railway Maintenance.**—Systems; track design; standards and charts; classification of accounts; measuring efficiency; emergency organization. *II*; (4) [W34, 1Q; 34a, 34b, 2Q; 34c, 3Q; 3 quarter hours]. Professor KING

*Prerequisite:* Civil Engineering 51.

**35. Railway Signaling.**—Block and route signaling; systems in use; history; railway accidents. *I*; (1) [3Q; 2 quarter hours]. Professor KING

*Prerequisite:* Civil Engineering 51.

**50-51. Seminar.**—Current topics; review of railway journals; assigned topics and reports. *I, II*; (1) [50, 2Q; 51, 3Q; 1 quarter hour]. Professor KING

*Prerequisite:* Open to seniors in railway courses only.

**60. Electric Railway Principles.**—Mechanics of traction; train resistance; braking of electric railway trains; method of solving fundamental electric railway problems. *II*; (2) [2Q, 3Q; 3 quarter hours]. Professor ROOD

*Prerequisite:* Theoretical and Applied Mechanics 25; Electrical Engineering 25, 75.

**61. Electric Traction.**—Selection and operation of equipment. (A condensed course for students in railway mechanical engineering or other engineering departments.) *II*; (3) [W61, 1Q; 61, 61b, 2Q; 61e, 3Q; 3 quarter hours]. Professor ROOD, Mr. DUNN

*Prerequisite:* Theoretical and Applied Mechanics 21 or 25; Electrical Engineering 11, 61, or 25, 75.

**62. Electric Railway Laboratory.**—Tests of electrical machinery used in railway service. *I*; (2) [W62; 1Q, 2Q; 2 quarter hours]. Professor ROOD

*Prerequisite:* Railway Engineering 60.

**63. Electric Railway Laboratory.**—(A continuation of Railway Engineering 62.) Tests with the electric test car and the steam dynamometer car to determine train resistance and power consumption. *II*; (2) [3Q; 2 quarter hours]. Professor ROOD

*Prerequisite:* Railway Engineering 62, 64.

**64. Electric Railway Practise.**—Types of equipment; energy consumption; methods of distribution. *I*; (3) [W64; 1Q, 2Q; 3 quarter hours]. Professor ROOD

*Prerequisite:* Theoretical and Applied Mechanics 25; Electrical Engineering 26, 76; Railway Engineering 60.

**65. Electric Railway Economics.**—Location and operation; choice of systems; location of power plant and sub-stations; calculation of transmission and distribution of circuits; maintenance of way and of equipment; electrification of steam roads. *II*; (4) [3Q; 4 quarter hours]. Professor ROOD

*Prerequisite:* Railway Engineering 64.

**66. Electric Railway Machinery.**—Theory and characteristics of electrical machinery used for railway service, of transmission and distribution lines. *I*; (3) [W66; 1Q, 2Q; 3 quarter hours]. Professor ROOD

*Prerequisite:* Railway Engineering 60; Electrical Engineering 26, 76.

**67-68. Seminar.**—Current topics; review of railway journals; assigned topics and reports. *I, II*; (1) [67, 2Q; 68, 3Q; 1 quarter hour]. Professor ROOD

*Prerequisite:* Open to seniors in railway courses only.

**98. Thesis.**—Independent solution of some railway problem or the investigation of some subject. The thesis may consist of an original design or of an original experimental investigation, or may be the analysis and discussion of facts already in existence. *II*; (3) [3Q; 3 quarter hours]. Professor KING, Professor ROOD, Associate Professor SNODGRASS

**99. Inspection Trip.**—*I*; (no credit) [3Q; no credit].

*Prerequisite:* Senior standing.

### Courses for Graduates

Entrance on graduate work in railway engineering presupposes the full undergraduate course in that subject.

**102. Locomotive Design.**—Modern practise concerning steam pressure, compounding, superheating. *Once a week*; *I, II*; (1 unit). Associate Professor SNODGRASS

**106. Locomotive Operation.**—Train resistance and tractive effort; tonnage ratings. *Once a week*; *I, II*; (1 unit). Associate Professor SNODGRASS



**108. Electric Railway Practise.**—The design, selection, operation, and maintenance of equipment; central station, substation, rolling stock, and line equipment. *Once a week; I, II; (1 unit).*  
Professor ROOD

**110. Railway Location.**—The effect of location on earning capacity; problems in original location, in the relocation and reduction of grades of existing lines. *I, II; (1 unit).*  
Professor KING

# ROMANCE LANGUAGES AND LITERATURE

KENNETH MCKENZIE,<sup>1</sup> Ph.D., *Professor, Head of Department*  
 THOMAS EDWARD OLIVER, Ph.D., *Professor*  
 JOHN DRISCOLL FITZ-GERALD, Ph.D., *Professor of Spanish, Chairman*  
 DAVID HOBART CARNAHAN, Ph.D., *Professor*  
 OLIN HARRIS MOORE, Ph.D., *Assistant Professor*  
 ARTHUR ROMEYN SEYMOUR, Ph.D., *Associate, Assistant Dean of Foreign Students*  
 HOMERO SERIS, Ph.D., *Associate*  
 JOHN VAN HORNE, Ph.D., *Instructor*  
 JOHN RAYMOND SHULTERS, Ph.D., *Instructor*  
 DAISY LUANA BLAISDELL, A.M., *Instructor*  
 CHARLES SERAPHIN CARRY, *Assistant*  
 RAFAEL ARCANGEL SOTO, B.S., A.M., *Assistant*  
 MANUEL LEON LOPEZ, A.M., *Assistant*  
 JANE COULSON WATSON, A.M., *Assistant*  
 ELISA CURTIS, *Assistant*  
 MILDRED DIMMICK, A.B., *Assistant*  
 GERTRUDE DELÉ GAGER, A.B., *Assistant*  
 ELISABETH REINHARDT OLIVER, *Assistant*  
 KATHARINE LAYTON CRATHORNE, Ph.D., *Assistant*  
 MAYCE FRIES SEYMOUR,<sup>2</sup> A.B., *Assistant*  
 HERLINDA SMITHERS SERIS,<sup>2</sup> A.B., *Assistant*  
 ADELAIDE ELENA SMITHERS,<sup>3</sup> A.B., *Assistant*  
*Cooperating:*  
 LEONARD BLOOMFIELD, Ph.D., *Assistant Professor, Comparative Philology and German*  
 CHARLES ALLYN WILLIAMS, Ph.D., *Associate in German*  
 GERTRUDE SCHEPPERLE, Ph.D., *Associate in English*  
 ARMIN HAJMAN KOLLER,<sup>2</sup> Ph.D., *Instructor in German*  
 WILLEM RUDOLFS, A.E.,<sup>2</sup> *Assistant in Soil Analysis*

## FRENCH

**Major:** 20 hours of French, exclusive of French 1a, 1b, 2a, 6a, 6b, 6c.

**Minors:** 20 hours in not more than two of the following subjects: comparative literature, English (excluding Rhetoric 1-2), German, Greek, history, Italian, Latin, Spanish; provided that at least 8 hours must be taken in any subject chosen.

## SPANISH

**Major:** 20 hours of Spanish, exclusive of Spanish 1a, 1b.

**Minors:** 20 hours in not more than two of the following subjects: comparative literature, English (excluding Rhetoric 1-2), French, German, Greek, history, Italian, Latin; provided that at least 8 hours must be taken in any subject chosen.

<sup>1</sup> Absent on war service.

<sup>2</sup> First quarter.

<sup>3</sup> Second and third quarters.

## ROMANCE LANGUAGES

**Major:** 20 hours in some one Romance language, exclusive of French 1a, 1b, 2a, 6a, 6b, 6c; Spanish 1a, 1b.

**Minors:** 20 hours in not more than two of the following subjects: comparative literature, English (excluding Rhetoric 1-2), French, German, Greek, history, Italian, Latin, Spanish; provided that at least 12 hours must be taken in some one Romance language other than the language of the major, and exclusive of French 1a, 6a, 6b, 6c, Italian 1a, Spanish 1a; and provided that not less than 8 hours must be taken in any subject chosen.

## A. FRENCH

## Courses for Undergraduates

**1a-1b. Elementary Course.**—Grammar; pronunciation; reading of modern authors; composition; conversation. *I, II*; (4) [W1-1b-1c; 1Q, 2Q, 3Q; 4 quarter hours].

Professor CARNAHAN, Assistant Professor BLOOMFIELD, Assistant Professor MOORE, Dr. SEYMOUR, Dr. WILLIAMS, Dr. SCHEPPERLE, Dr. SERIS, Dr. KOLLER, Dr. VAN HORNE, Dr. SHULTERS, Miss BLAISDELL, Mr. CARRY, Mr. SOTO, Mr. LOPEZ, Miss DIMMICK, Miss GAGER, Mr. RUDOLFS, Mrs. OLIVER, Dr. CRATHORNE, Mrs. SEYMOUR, Mrs. SERIS

**1a-1b. Beginners' Course.**—Grammar; pronunciation; reading of modern authors; composition; conversation. [2Q, 3Q; 6 quarter hours].

Assistant Professor MOORE, Dr. VAN HORNE, Mr. CARRY, Mr. SOTO, Mrs. OLIVER

**1-1x. Beginners' Course (for Engineers only).**—Grammar; pronunciation; reading of modern authors; composition; conversation. [2Q, 3Q; 4 quarter hours]. Dr. SCHEPPERLE

**2-2b-2c. Modern Prose, Poetry, and Drama.**—Rapid reading of modern authors; syntax and composition. *I, II*; (4) [W2-2b-2c; 1Q, 2Q, 3Q; 4 quarter hours].

Professor OLIVER, Professor FITZ-GERALD, Professor CARNAHAN, Assistant Professor MOORE, Dr. VAN HORNE, Dr. SHULTERS, Miss DIMMICK

*Prerequisite:* French 1a-1b, or an equivalent demonstrated by examination.

**3. Elementary Military Conversation.**—(Open exclusively to S.A.T.C. students, twenty years of age or over, who have never studied French. No outside study required; three hours of class-room exercise. Does not count towards a degree.) [W3; 1Q; no quarter hours].

Assistant Professor MOORE, Mr. CARRY

**4. Military Conversation.**—(Open exclusively to S.A.T.C. students, twenty years of age or over. No outside study required; three hours of class-room exercise.) [W4; 1Q; 1 quarter hour].

Dr. SERIS, Mr. CARRY

*Prerequisite:* At least one year of college French or the equivalent.

**5a-5b. Introduction to French Literature.**—Authors of the last three centuries. Advanced syntax and composition. *I, II*; (3) [W5-5b-5c; 1Q, 2Q, 3Q; 3 quarter hours].

Professor FITZ-GERALD

*Prerequisite:* French 2a-2b, or an equivalent demonstrated by examination.

**6a-6b. Elementary Conversation.**—(Open exclusively to students taking French 2. No outside study required; three hours of class-room exercise. Does not count towards a major in French or in Romance languages.) *I, II*; (1) [2Q, 3Q; 1 quarter hour].

Mr. CARRY

*Prerequisite:* French 1a-1b.

**7a-7b. Intermediate Composition and Conversation.**—Conducted entirely in French,

giving facility in idiomatic expression by writing and speaking. Reading; themes; talks on France and French life. *I, II; (2)* [W7-7b-7c; 1Q, 2Q, 3Q; 2 quarter hours].

Dr. SEYMOUR, Mr. CARRY

*Prerequisite:* French 2a-2b.

NOTE.—Required of those who are given the recommendation of the department to teach French.

[8a-8b. **Advanced Composition and Conversation.**—French life and literature. Idiomatic construction; syntax; themes. Conducted entirely in French. *I, II; (2)*. Not given, 1918-19.

*Prerequisite:* French 7a-7b.]

25. **Course for Teachers.**—Methods of teaching French; discussion of class-room problems. *II; (2)* [3Q; 3 quarter hours].

Professor CARNAHAN

*Prerequisite:* Twenty-four hours' credit in French, including French 7a-7b.

28a-28b. **Senior Thesis.**—(For candidates for honors in French; open to other seniors.) *I, II; (1)* [W28-28b-28c; 1Q, 2Q, 3Q; 1 quarter hour].

Members of the department

### Courses for Advanced Undergraduates and Graduates

*Prerequisite:* French 5a-5b or the equivalent; or senior standing and the consent of the instructor.

10a-10b. **Survey of French Literature.**—Special periods and authors. The main currents of French literature from the beginning to the present time. *I, II; (3)* [W10-10b-10c; 1Q, 2Q, 3Q; 3 quarter hours].

Professor CARNAHAN

24a-24b. **Seventeenth and Eighteenth Century Drama.**—Corneille, Racine, Moliere, Voltaire, Marivaux, Sedaine, Beaumarchais. Lectures and interpretation. *I, II; (3)* [W24-24b-24c; 1Q, 2Q, 3Q; 3 quarter hours].

Professor OLIVER

[17a-17b. **Nineteenth Century Drama.**—Victor Hugo, Dumas, Augier, Sardou, Becque, Brieux, Hervieu, Bourget, Donnay, Rostand, and other dramatists. Dramatic criticism. Not given, 1918-19.

Professor McKENZIE]

45a-45b. **French Realism.**—Flaubert, Maupassant, E. and J. de Goncourt, Daudet, Zola. Lectures; reports on collateral reading. Conducted in French if desired. *I, II; (2)* [W45-45b-45c; 1Q, 2Q, 3Q; 2 quarter hours].

Assistant Professor MOORE

### Courses for Graduates

Before entering upon the study of Romance languages as a major for the degree of A.M., the candidate must have had at least (a) three years of college work in one Romance language, and a reading knowledge, satisfactory to the department, of another Romance language; or (b) two years of college work in each of two Romance languages. Before being accepted as a recognized candidate for the degree of Ph.D., he must have had in addition satisfactory training in Latin.

Before entering on the study of Romance languages as a first or second minor for an advanced degree, the candidate must have had at least two years of college work in the language desired.

101. **Old French Epic Literature.**—Critical reading and interpretation of national and courtly epics and collateral study of their history. *Twice a week; I, II; (1 unit)* [W101; 1Q, 2Q, 3Q; 1 quarter unit].

Professor OLIVER

[102. **Old French Lyric and Prose Literature.**—Critical interpretation of the earlier Old French didactic, chronicle, and lyric writers; history of these types of medieval literature. *Twice a week; I, II; (1)* Not given, 1918-19.

Professor OLIVER]

[103. **Seventeenth Century Prose Writers.**—French culture, society, and prose literature of the seventeenth century; the great preachers and moralists; Jansenism and Port Royal; formation of the classic ideals. *Once a week; I, II; (½ unit)*. Not given, 1918-19.

Professor OLIVER]

[104. **Eighteenth Century Prose Writers.**—Society, culture, and prose literature of the eighteenth century; attack on the classic ideals; the revolutionary spirit; first movements towards romanticism. *Once a week; I, II; (½ unit)* [W104; 1Q, 2Q, 3Q; ½ quarter unit].

Professor OLIVER]

[106. **Early French Drama.**—Origins of the drama in France, and its development up to the Renaissance. *Twice a week; I, II; (1 unit)*. Not given, 1918-19.

Professor CARNAHAN]

[127. **French Romanticism.**—Origin and development of the Romantic movement in France. *Twice a week; I, II; (1 unit)*. Not given, 1918-19.

Professor CARNAHAN]

## B. ITALIAN

### Course for Undergraduates

1a-1b. **Elementary Course.**—Grammar; composition; conversation; reading. *I, II; (4)* [W1-1b-1c; 1Q, 2Q, 3Q; 4 quarter hours].

Dr. VAN HORNE

### Course for Advanced Undergraduates and Graduates

[2a-2b. **Italian Literature.**—Reading; composition; conversation. Introduction to Dante. *I, II; (2)*. Not given, 1918-19.

Professor MCKENZIE

*Prerequisite:* A reading knowledge of Italian.]

### Courses for Graduates

[140. **Italian Literature of the Thirteenth and Fourteenth Centuries.**—Dante, Petrarch, Boccaccio. *Twice a week; I; (1 unit)*. Not given, 1918-19.

Professor MCKENZIE]

[143. **Italian Literature of the Fifteenth and Sixteenth Centuries.**—*Twice a week; I; (1 unit)*. Not given, 1918-19.

Professor MCKENZIE]

[146. **Modern Italian Literature.**—Italian writers of the nineteenth century. *Twice a week; II; (1)*. Not given, 1918-19.

Professor MCKENZIE]

## C. SPANISH

### Courses for Undergraduates

1a-1b. **Elementary Course.**—Grammar; pronunciation; reading; composition; conversation. *I, II; (4)*.

Dr. SEYMOUR, Mr. LOPEZ, Miss WATSON, Miss CURTIS, Mrs. SERIS

1a-1b. **Beginners' Course.**—Grammar; pronunciation; reading; composition; conversation. [2Q, 3Q; 6 quarter hours].

Mr. SOTO, Miss WATSON, Miss CURTIS, Miss SMITHERS

1-1x. **Beginners' Course (for Engineers only).**—Grammar; pronunciation; reading; composition; conversation. [2Q, 3Q; 4 quarter hours].

Miss CURTIS

2a-2b. **Modern Spanish.**—Rapid reading; review of grammar; conversation on topics of everyday life; composition. *I, II; (4)* [W2-2b-2c; 1Q, 2Q, 3Q; 4 quarter hours].

Dr. SERIS, Mr. SOTO, Miss WATSON

*Prerequisite:* Spanish 1a-1b, or an equivalent demonstrated by examination.

**3a-3b. Introduction to Spanish Literature.**—Reading of modern authors and of writers of the seventeenth century. *I, II; (3) [W3-3b-3c; 1Q, 2Q, 3Q; 3 quarter hours].*

Dr. SERIS

*Prerequisite:* Spanish 2a-2b, or an equivalent demonstrated by examination.

**4a-4b. Business Correspondence and Conversation.**—Reading of facsimile business correspondence; writing of business letters; conversation. Reports on commercial topics. Conducted in Spanish. *I, II; (2) [W4-4b-4c; 1Q, 2Q, 3Q; 2 quarter hours].*

Dr. SEYMOUR

*Prerequisite:* Spanish 2a-2b.

**[5a-5b. Business Practise in Spanish.**—Commercial, legal, consular, and governmental documents and trade reports; conversation; advanced correspondence. (Primarily for students in Commerce and Business Administration.) *I, II; (2). Not given, 1918-19.*

Dr. SEYMOUR

*Prerequisite:* Spanish 4a-4b.]

### Courses for Advanced Undergraduates and Graduates

**11a-11b. The Spanish Drama of the Sixteenth and Seventeenth Centuries.**—Earlier dramatists; representative plays of Lope de Vega, Calderon, Ruiz de Alarcon and Tirso de Molina. Reports on outside reading. *I, II; (2) [W11-11b-11c; 1Q, 2Q, 3Q; 2 quarter hours].*

Dr. SEYMOUR

*Prerequisite:* Spanish 3a-3b, or the permission of the instructor.

**[17a-17b. The Spanish Drama of the Nineteenth Century.**—Representative plays. Reports on outside reading. *I, II; (2). Not given, 1918-19.*

Dr. VAN HORNE]

*Prerequisite:* Spanish 3a-3b, or the permission of the instructor.

### Courses for Graduates

**[132. The Novela of the Golden Age.**—Political and social conditions in Spain from 1560 to 1700; *Don Quixote* and the *Novelas Ejemplares* of Cervantes. *Twice a week; I, II; (1 unit). Not given, 1918-19.*

Professor FITZ-GERALD]

**[133. Origin of the Spanish Novela and of the Comedia.**—The development of Spanish prose fiction and of Spanish dramatic art for the period previous to the Golden Age. *Twice a week; I, II; (1 unit). Not given, 1918-19.*

Professor FITZ-GERALD]

**[134. The Spanish Ballad.**—Types of the ballad. Lectures; collateral readings; reports. *Twice a week; I, II; (1 unit). Not given, 1918-19.*

Dr. SEYMOUR]

**[135. The Modern Novel in Spain.**—Development of the modern novel in Spain from the middle of the nineteenth century to the present time; development of the novel in Spain, France, and Italy. *Twice a week; I, II; (1 unit). Not given, 1918-19.*

Dr. SEYMOUR]

**137. Spanish Satire.**—Development of satire in Spanish literature from the earliest monuments to the present. *Twice a week; I, II; (1 unit) [W137; 1Q, 2Q, 3Q; 1 quarter unit].*

Dr. SEYMOUR

**139. Spanish Literature of the Middle Ages—From the Origins to the End of the Reign of John II of Castile.**—*Twice a week; I, II; (1 unit) [W139; 1Q, 2Q, 3Q; 1 quarter unit].*

Professor FITZ-GERALD

### D. ROMANCE PHILOLOGY

#### Courses for Graduates

**[171. Introduction to Romance Philology.**—Historical phonology and morphology of the Romance languages. *Twice a week; I, II; (1 unit). Not given, 1918-19.*

Professor FITZ-GERALD

**175. Old French Phonology and Morphology.**—Development of Old French from Vulgar Latin. *Once a week; I, II; (1½ unit)* [W175; 1Q, 2Q, 3Q; ½ quarter unit].

Professor FITZ-GERALD

**[179. Provençal.**—Study of the grammar and reading of texts. *Once a week; I, II; (½ unit)*. Not given, 1918-19.

Assistant Professor MOORE]

**[181. Origins of the Italian Language.**—Italian literature previous to Dante. *Twice a week; II; (1 unit)*. Not given, 1918-19.

Professor MCKENZIE]

**[185. Oldest Monuments of the Spanish Language.**—Origins of Spanish poetry. Historical grammar. *Twice a week; I, II; (1 unit)*. Not given, 1918-19.

Professor FITZ-GERALD]

**[191. Fables and Bestiaries.**—History of animal literature, with special reference to medieval French and Italian collections. *Twice a week; II; (1 unit)*. Not given, 1918-19.

Professor MCKENZIE]

**195. Seminar.**—Research work in preparation for theses. *I, II; (1 unit)* [W195; 1Q, 2Q, 3Q; 1 quarter unit].

Members of the department

#### Summer Session Courses

##### Methods of Teaching

**French S 25 or Spanish S 25. Methods of Teaching Modern Languages.**—Discussion of practical problems. During a portion of the time the class will be divided into two sections, for French and Spanish respectively.

Professor FITZ-GERALD with the cooperation of Assistant Professor MOORE

##### French

**S 1a. Elementary Course.**—Pronunciation, grammar, reading of easy texts. (4).

Assistant Professor MOORE, Dr. SEYMOUR

*Equivalent:* French 1a, or one year of high-school French.

**S 2a. Composition, Conversation.**—Reading of modern authors.

Assistant Professor MOORE, Dr. SEYMOUR

*Prerequisite:* One year of college French, or the consent of the instructor.

##### Course for Advanced Undergraduates and Graduates

**S 22. Nineteenth Century Fiction and Drama.**—(1).

Professor FITZ-GERALD

*Prerequisite:* Three years of college French, or the consent of the instructor.

##### Spanish

**S 1a. Elementary Course.**—Pronunciation, grammar, reading of easy texts. (4).

Mr. LOPEZ

*Equivalent:* Spanish 1a, or one year of high-school Spanish.

**S 2a. Second-year Spanish.**—Reading of modern authors, review of the grammar, conversation. (2).

Professor FITZ-GERALD

*Prerequisite:* One year of college Spanish, or the consent of the instructor.

##### Course for Advanced Undergraduates and Graduates

**S 22. Nineteenth Century Fiction and Drama.**—(1).

Professor FITZ-GERALD

*Prerequisite:* Three years of college Spanish, or the consent of the instructor.

#### SCANDINAVIAN

(See THE ENGLISH LANGUAGE AND LITERATURE.)

#### THE SOCIAL SCIENCES

(See ECONOMICS, HISTORY, POLITICAL SCIENCE, and SOCIOLOGY.)

## SOCIOLOGY

EDWARD CARY HAYES, Ph.D., *Professor*  
 STUART ALFRED QUEEN, A.M., *Instructor*  
 EDWARD BYRON REUTER, A.M., *Assistant*

*Cooperating:*

DAVID KINLEY, Ph.D., LL.D., *Professor of Economics*  
 GORDON WATKINS, Ph.D., *Instructor in Economics*

**Major:** 20 hours from any courses offered in the department.

**Minors:** 20 hours chosen from any two or three of the following subjects: history, economics, political science, philosophy, and psychology.

## Courses for Undergraduates

1. **The principles of Sociology and their Application to Present Problems.**—*I* or *II*;  
 (3) [W1a, 1Q, 2Q; 1b, 2Q, 3Q; 3 quarter hours].

Professor HAYES, Mr. REUTER, Mr. QUEEN

*Prerequisite:* Junior standing.

7. **The Social Problems of the Rural Community.**—*II*; (2) [3Q; 2 quarter hours].

Professor HAYES, Mr. QUEEN

*Prerequisite:* Junior standing.

## Courses for Advanced Undergraduates and Graduates

2. **Social Psychology.**—Current tendencies in the psychological interpretation of social life; ways in which the sentiments, opinions, and conduct of the members of society are shaped. *II*; (3) [3Q; 3 quarter hours].

Mr. REUTER

*Prerequisite:* Sociology 1.

3. **Social Evolution.**—Social activity among savage, barbarous, and civilized people; family organization, practical arts, economic wants and institutions, origins of government and law, codes of morality, religions; inductions from such facts, as to the theory of social evolution and the method of progress. *II*; (3) [2Q; 3 quarter hours].

Professor HAYES

*Prerequisite:* Sociology 1.

8. **Charities.**—Evolution of modern organized philanthropy, public and private; causes and prevention of poverty; organization and management of charitable institutions. *I*; (3) [W8a, 1Q; 8b, 2Q; 3 quarter hours].

Mr. QUEEN

*Prerequisite:* Sociology 1 or Economics 1; junior standing.

9. **Criminology.**—Nature, causes, and treatment of the criminal; evolution of modern methods of criminal procedure and penology; recent experiments and tendencies. *II*;  
 (3) [3Q; 3 quarter hours].

Mr. QUEEN

*Prerequisite:* Sociology 1 or senior standing.

10. **Population.**—Theories and policies of population; Maltus's principle; and its critics; population of the United States; immigration, race mixture, public health, death-rate, "race-suicide," marriage, divorce; selective influences at work on the "population type." *I*; (3) [3Q; 3 quarter hours].

Mr. REUTER

*Prerequisite:* Sociology 1 or senior standing.

- 12a-12b. **Labor Problems.**—The same as Economics 12a-12b. *I, II*; (3) [W12; 1Q, 2Q, 3Q; 3 quarter hours].

Dr. WATKINS

*Prerequisite:* Senior standing, Economics 1, and three additional hours in economics for which Economics 1 is a prerequisite; or senior standing and Economics 1 for students whose major subject is sociology.

**13. Problems of Child Welfare.**—Place of the child in society; normal life of the child; problems of infant mortality, feeble-mindedness, child labor, juvenile dependency, and delinquency. *II*; (3) [2Q; 3 quarter hours]. Mr. QUEEN

*Prerequisite:* Sociology 1, or Psychology 1, or Education 1.

**14. Social Statistics.**—Social investigation and research; social and community surveys; verification of sociological principles by the statistical method; vital statistics and population in the light of data afforded by official publications and special investigations; the statistical method applied to sociology and social problems. *I*; (3) [3Q; 3 quarter hours]. Mr. QUEEN

*Prerequisite:* Economics 1, and two courses in sociology.

**15. The Family.**—Historical aspects of the family; its role in modern society, and problems of social policy arising therefrom. *I*; (3) [2Q; 3 quarter hours]. Mr. REUTER

*Prerequisite:* Sociology 1.

**21. Economic Foundations of Society.**—The same as Economics 21. *II*; (2) [2Q; 3 quarter hours]. Professor KINLEY

*Prerequisite:* Economics 1 and 3. Students who have taken 6 hours in history and are making sociology their major subject may substitute Sociology 1 for Economics 3 as a prerequisite.

**25. Morality as a Factor in Social Evolution and Social Organization.**—*II*; (3) [3Q; 3 quarter hours]. Professor HAYES

*Prerequisite:* Consent of instructor.

**26. Social Education.**—(1) The extent to which and the processes by which individuality is shaped through social contacts and group membership. (2) The variability of societies consequent upon such social modification of the ideas, sentiments and traits of their individual members, as shown by comparative study of societies and groups. *II*; (2) [3Q; 2 quarter hours]. Professor HAYES

*Prerequisite:* Consent of instructor.

### Courses for Graduates

Preparation for graduate work in sociology must include the equivalent of twelve semester hours in the social sciences, of which at least three must be in sociology, and three in the principles of economics. The remainder may be in any combination of these two subjects, or of history and political science.

**100. Bases of Social Theory.**—Systematic presentation and critical discussions. *Twice a week; I*; ( $\frac{1}{2}$  to 1 unit). Professor HAYES

**102. The Development of Sociology.**—Reading of sociological works; discussions; lectures. *Twice a week; I, II*; (1 unit). Professor HAYES

**150. Seminar.**—Detection and statement of problems. Preparation of theses. *Once a week; I, II*; (1 or 2 units). Professor HAYES

### TRANSPORTATION

ERNEST RITSON DEWSNUP,<sup>1</sup> A.M., *Professor*

GEORGE BURR McMILLEN,<sup>2</sup> A.M., *Instructor*

### Courses for Undergraduates

[1. **Transportation System of the United States.**—*I*; (3). Not given, 1918-19.

*Prerequisite:* Economics 1 or 2; junior standing.]

<sup>1</sup>On leave for war service, 1918-19.

<sup>2</sup>Resigned for military service, September, 1918.



[7. **Railway Organization.**—The departments and functions of the American railway. *I*; (2). Not given, 1918-19.

*Prerequisite:* Accountancy 1 and Economics 1, previously or concurrently. For senior students in the College of Engineering, Economics 2.]

[35a-35b. **Thesis.**—Investigation of problems in railway administration. Preliminary outline must be filed with the department by the second Friday in October, extended outline and bibliography by the second Friday in November, and a first draft of at least fifteen pages of the thesis by the second Friday in January. *I, II*; (2). Not given, 1918-19.

*Prerequisite:* Full senior standing in railway administration.]

### Courses for Advanced Undergraduates and Graduates

[2. **Transportation Policy in Europe and in the United States.**—The regulation of railways in the United States and Europe. *II*; (3). Not given, 1918-19.

*Prerequisite:* Transportation 1; Economics 1.]

[12. **Freight Shipment.**—Preparation of goods for shipment and practical rate-making. *II*; (2). Not given, 1918-19.

*Prerequisite:* Transportation 7, or 60 hours of university work.]

[13. **Railway Traffic Administration.**—Freight and passenger traffic management. *I*; (3). Not given, 1918-19.

*Prerequisite:* Transportation 12, or credit or concurrent registration in Transportation 1.]

[17. **Railway Terminal Management.**—Freight and passenger terminals. *I*; (3). Not given, 1918-19.

*Prerequisite:* Transportation 7, or credit or concurrent registration in Transportation 1; Economics 1.]

[22. **Railway Train Service.**—The standard code of train rules; train dispatching; block-signaling; time-table construction. (An inspection trip to Chicago of four days' duration forms part of this course, Monday to Thursday, inclusive, preceding the Easter recess; expenses about \$12.) *II*; (3). Not given, 1918-19.

*Prerequisite:* Transportation 1, 7, and 13.]

[26. **The Economics of Railway Construction and Maintenance.**—*II*; (3). Not given, 1918-19.

*Prerequisite:* Transportation 1, 7, and 17.]

### Courses for Graduates

[101. **Railway Rate Policy.**—*Twice a week; I; (1 unit).* Not given, 1918-19.]

[102. **The Fiscal Administration of American Railways.**—*Twice a week; II; (1 unit).* Not given, 1918-19.]

[103. **Foreign Railway Administration.**—*Twice a week; I; (1 unit).* Not given, 1918-19.]

[104b. **Standards of Railway Operation.**—The work of this course requires a cycle of three years for its completion, tho credit will be given for each semester's work. 104a deals with organization and maintenance of standards, 104c with passenger service. *Once a week or, at the option of the instructor, twice a week; II; (1 unit).* Not given, 1918-19.]

### WAR ISSUES

EVARTS BOUTELL GREENE, Ph.D., *Professor of History, Chairman*

ARTHUR HILL DANIELS, Ph.D., *Professor of Philosophy, Lecturer*

MAURICE HENRY ROBINSON, Ph.D., *Professor of Industry and Transportation, Lecturer*

JAMES WILFORD GARNER, Ph.D., *Professor of Political Science, Lecturer*

STUART PRATT SHERMAN, Ph.D., *Professor of English, Lecturer*  
 CHARLES FREDERICK HOTTES, Ph.D., *Professor of Plant Physiology, Lecturer*  
 JOHN STERLING KINGSLEY, D.Sc., *Professor of Zoology, Lecturer*  
 LAURENCE MARCELLUS LARSON, Ph.D., *Professor of History, Lecturer*  
 ERNEST BERNBAUM, Ph.D., *Professor of English, Lecturer*  
 ALBERT TEN EYCK THOMPSTEAD, Ph.D., *Professor of History, Lecturer*  
 CHARLES MANFRED THOMPSON, Ph.D., *Associate Professor of Economics, Lecturer*

*Discussion Leaders, from the Teaching Faculty:*

IRA OSBORN BAKER, C.E., D.Eng., *Professor of Civil Engineering*  
 HERBERT JEWETT BARTON, A.M., *Professor of the Latin Language and Literature*  
 DANIEL KILHAM DODGE, Ph.D., *Professor of the English Language and Literature*  
 EUGENE DAVENPORT, M.Agr., LL.D., *Professor of Thremmatology, Dean of College of Agriculture*  
 MORGAN BROOKS, Ph.B., M.E., *Professor of Electrical Engineering*  
 JOSEPH CULLEN BLAIR, M.S., *Professor of Horticulture*  
 THOMAS EDWARD OLIVER, Ph.D., *Professor of Romance Language*  
 WILBER JOHN FRASER, M.S., *Professor of Dairy Farming*  
 HARRY SANDS GRINDLEY, D.Sc., *Professor of Animal Nutrition*  
 WILLIAM ALBERT NOYES, Ph.D., LL.D., *Professor of Chemistry*  
 EDWARD CARY HAYES, Ph.D., *Professor of Sociology*  
 GEORGE ALFRED GOODENOUGH, M.E., *Professor of Thermodynamics*  
 PHINEAS LAWRENCE WINDSOR, Ph.B., *Director of the Library and the Library School*  
 HARRY HARKNESS STOEK, B.S., E.M., *Professor of Mining Engineering*  
 JOHN WILLIAM LLOYD, Ph.D., *Professor of Olericulture*  
 KENDRIC CHARLES BABCOCK, B.Lit., Ph.D., LL.D., *Dean of the College of Liberal Arts and Sciences*  
 WILLIAM TRELEASE, D.Sc., LL.D., *Professor of Botany*  
 WILLIAM SHIRLEY BAYLEY, Ph.D., *Professor of Geology*  
 FREDERICK HAYNES NEWELL, B.S., D.Eng., *Professor of Civil Engineering*  
 ARTHUR STANLEY PEASE, Ph.D., *Professor of the Classics*  
 CHARLES ZELANY, Ph.D., *Professor of Zoology*  
 ELIOT BLACKWELDER, Ph.D., *Professor of Geology*  
 DAVID HOBART CARNAHAN, Ph.D., *Professor of Romance Languages*  
 CHRISTIAN ALBAN RUCHMICH, Ph.D., *Assistant Professor of Psychology*  
 HOMER EDWARDS WOODBRIDGE, A.M., *Visiting Professor of English*  
 GEORGE TOBIAS FLOM, Ph.D., *Associate Professor of Scandinavian*  
 ROBERT STEWART, Ph.D., *Professor of Soil Fertility*  
 JAMES BYRNIE SHAW, D.Sc., *Professor of Mathematics*  
 DAVID FORD MCFARLAND, Ph.D., *Associate Professor of Applied Chemistry*  
 HARRY GILBERT PAUL, Ph.D., *Associate Professor of English*  
 JOHN MABRY MATHEWS, Ph.D., *Associate Professor of Political Science*  
 EDWARD CHAUNCEY BALDWIN, Ph.D., *Assistant Professor of English*  
 WILLIAM SPENCE ROBERTSON, Ph.D., *Associate Professor of History*  
 GEORGE FOSS SCHWARTZ, B.Mus., *Assistant Professor of Music*  
 HARRIE STUART VEDDER JONES, Ph.D., *Assistant Professor of English*  
 BETHEL STEWART PICKETT, M.S., *Professor of Pomology*  
 MARTIN JOHN PRUCHA, Ph.D., *Associate Professor of Dairy Bacteriology*  
 ALBERT WOODWARD JAMISON, M.S., *Assistant Professor of Agricultural Extension*  
 JACOB ZEITLIN, Ph.D., *Assistant Professor of English*  
 CHARLES HENRY WOOLBERT, Ph.D., *Assistant Professor of Speech*  
 DANIEL OTIS BARTO, B.S., *Associate in Animal Husbandry*

SLEETER BULL, M.S., *Associate in Animal Nutrition*  
 CLARENCE VALENTINE BOYER, Ph.D., *Associate in English*  
 HERBERT LE Sourd CREEK, Ph.D., *Associate in English*  
 GILBERT GUSLER, B.S., *Associate in Animal Husbandry*  
 CHARLES ALLYN WILLIAMS, Ph.D., *Associate in German*  
 FRANK ARCHIBALD WYATT, Ph.D., *Assistant Professor of Soil Fertility*  
 OLIVER RALPH OVERMAN, Ph.D., *Associate in Dairy Chemistry*  
 CLARISSA RINAKER, Ph.D., *Associate in English*  
 ROBERT CALVIN WHITFORD, Ph.D., *Instructor in English*  
 ROBERT EUGENE CUSHMAN, Ph.D., *Associate in Political Science*  
 ANANIAS CHARLES LITTLETON, A.M., *Instructor in Accountancy*  
 LEW R SARETT, A.B., LL.B., *Associate in English*  
 JOHN VAN HORNE, Ph.D., *Instructor in Romance Languages*  
 GORDON WATKINS, Ph.D., *Instructor in Economics*  
 ERNEST ERWIN LEISY, A.B., *Instructor in English*  
 ALAN DUGALD MCKILLOP, A.M., *Instructor in English*  
 JOSEPH LOGAN RENTFRO, A.M., *Instructor in English*  
 CHARLES ALBERT ROUSE, Ph.B., A.M., *Instructor in English*  
 BEATRICE VIRGINIA COPLEY, A.M., *Assistant in English*  
 COLEMAN ROBERTS GRIFFITH, A.B., *Assistant in Psychology*  
 ARTHUR JAMES SCHUETTNER, E.G., *Associate in Physical Education*  
 ELMO SCOTT WATSON, A.B., *Assistant in English*

*From the Administrative Staff:*

HARRISON EDWARD CUNNINGHAM, A.B., *Director of the University Press*  
 ARTHUR RAY WARNOCK, A.B., *Assistant Dean of Men*  
 FRANK HERMAN BEACH, A.B., *Bursar, Business Office*

1. **The Historical Background of the Great War.**—American participation and the war aims of the United States. (3) [1Q].

Lecturers: Professors GREENE, DANIELS, ROBINSON, GARNER, SHERMAN, HOTTES, KINGSLEY, LARSON, BERNBAUM, OLMSTEAD, Associate Professor C. M. THOMPSON, assisted by other members of the War Issues staff serving as discussion leaders

2. **War Issues and English Composition.**—Lectures as in War Issues 1 with additional instruction in rhetoric and composition. (4) [1Q].

Lecturers as in War Issues 1, assisted by the following members of the department of English: Assistant Professors BALDWIN, H. S. V. JONES, ZEITLIN, Visiting Professor WOODBRIDGE, Dr. CREEK, Dr. BOYER, Miss RINAKER, Dr. WHITFORD, Miss COPLEY, Mr. WATSON, Mr. ROUSE, Mr. LEISY, Mr. MCKILLOP, Mr. RENTFRO

3. **National Ideals in Government.**—Political and social institutions of the United States, Great Britain, France, and Germany, with particular reference to their bearing upon the causes and issues of the war. (3) [2Q].

Lecturers: Professors DANIELS, ROBINSON, GARNER, LARSON, BERNBAUM. Discussion sections conducted by Professors GREENE, DANIELS, ROBINSON, GRINDLEY, GOODENOUGH, Associate Professors ROBERTSON, MATHEWS, Dr. CUSHMAN

4. **Economic Readjustment after the War.**—(3) [3Q].

Professor ROBINSON, Associate Professor C. M. THOMPSON, and others

5. **The Ideals of the Allied Nations.**—(3) [3Q].

Professor BERNBAUM

## ZOOLOGY

HENRY BALDWIN WARD, Ph.D., *Professor*  
 JOHN STERLING KINGSLEY, D.Sc., *Professor*  
 FRANK SMITH, A.M., *Professor*  
 CHARLES ZELENY, Ph.D., *Professor*  
 VICTOR ERNEST SHELFORD, Ph.D., *Assistant Professor*  
 HARLEY JONES VAN CLEAVE, Ph.D., *Associate*  
 ERNEST CARROLL FAUST, Ph.D., *Instructor*  
 ROKUSABURO KUDO, Ph.D., *Instructor*  
 JOSEPH KRAFKA, JR., M.A., *Research Assistant*  
 EZRA CLARENCE HARRAH, A.B., *Research Assistant*  
 FLORENCE SANDER HAGUE, A.M., *Assistant*  
 LEE RAYMOND DICE, Ph.D., *Assistant*  
 GEORGE BLACKLANE CLAYCOMB, M.S., *Graduate Assistant*  
 LENNA ADAIR WOODS, A.B., *Graduate Assistant*  
 ANNA MARY COLLINS, A.B., *Graduate Assistant*

**Major:** 20 hours from any courses offered in the department, excluding Zoology 1, and including Zoology 2, 3, 4, and 5.

**Minors:** 20 hours chosen from two or three of the following subjects: animal husbandry (Animal Husbandry 30), bacteriology, botany, chemistry, entomology, physics, physiology, psychology, paleontology, and physiography.

Courses 1 and 2 constitute an introduction to later work in zoology. In the second year, a student may choose as a line of work either morphological, experimental, ecological, faunistic, or systematic courses. The courses on microscopical technic (3), heredity and evolution (5), and current literature (20) are of value for all students. Medical students should take courses 3 and 6 the second year. Those preparing to teach zoology in the high school should take invertebrate morphology (4), field zoology (16, 17), and ecology (9, 11), and a course in general entomology.

## Courses for Undergraduates

1. **General Zoology.**—Animal biology; principles of structure; function, interrelations, origin, and development of animal life; the simpler and best-established generalizations in zoological theory. Lectures; laboratory; quiz work. *I* or *II*; (5) [W1, 1Q, 2Q, 5 quarter hours; 1a, 2Q, 3Q, 5 quarter hours. Covers intermediate parts of 1 and 2].

Professor WARD, Professor ZELENY, Assistant Professor SHELFORD, Dr. VAN CLEAVE, Dr. FAUST, Dr. KUDO, and assistants

2. **Vertebrate Zoology and Comparative Anatomy.**—Classification of the Chordata; the early stages of vertebrate embryology; structure of vertebrate tissues; anatomy of systems of organs considered in respect to their function, ontogeny, and evolution in the vertebrate series; anatomical studies of types of the Chordata. Lectures; laboratory; quiz work. *II*; (5) [3Q; 5 quarter hours].

Professor KINGSLEY, Dr. FAUST, and assistants

*Prerequisite:* Zoology 1 [W1, 1a].

4. **Invertebrate Morphology.**—Morphology of a series of invertebrates; invertebrate structure and development; the application of biological principles. Laboratory; lectures; demonstration. *II*; (3) [3Q; 4 quarter hours].

Dr. VAN CLEAVE

*Prerequisite:* Zoology 1 [W1].

**5. Heredity and Evolution.**—(a) The facts of heredity and present views regarding them. (b) The proofs of organic evolution with a discussion of the probable factors involved in the process. Lectures; demonstrations; assigned reading. *II*; (2) [3Q; 3 quarter hours].  
Professor ZELENY

*Prerequisite:* One year of university work.

**3. Microscopical Technic and Vertebrate Embryology.**—Theory and practise of microscopical technic; vertebrate embryo in early stages of development; methods of fixation, embedding, section cutting, staining, and mounting; preparation of material for use in introductory embryology. Lectures; laboratory. *I*; (3) [W3; 1Q; 3 quarter hours].  
Professor KINGSLEY

*Prerequisite:* Zoology 1, 2.

**6. Vertebrate Organogeny.**—Development of the organs of the vertebrate body. Lectures; assigned readings; laboratory studies on embryos of the chick, dogfish, *Amblystoma* and pig. (A continuation of Zoology 3.) *II*; (3) [2Q, 3Q; 3 quarter hours].  
Professor KINGSLEY

*Prerequisite:* Zoology 1, 2, 3.

**9. Animal Ecology.**—The relations of animals to their natural environments. Field and experimental work; lectures on the natural history of mammals, birds, reptiles, and amphibians. *II*; (3) [3Q; 4 quarter hours].  
Assistant Professor SHELFORD

*Prerequisite:* One year of zoology or one and one-half years of university work, including Zoology 1.

**16. Economic Ornithology.**—Common birds of the vicinity. Identification; food relations; seasonal distribution; migration; activities. Economic importance of birds and of their conservation. Lectures; assigned reading; two field trips per week during April and May. *II*; (2) [3Q; 3 quarter hours].  
Professor SMITH

**17. Field Zoology.**—Collection, preservation, and identification of common representatives of the lower vertebrates and of the various groups of land and fresh-water invertebrates (excluding insects) in the vicinity; identification work on living and preserved material from larger rivers and lakes; observations on the habits and life histories of selected forms. Field and laboratory work; assigned readings. *I*; (4) [W17a, 17b; 1Q, 2Q; 3 quarter hours].  
Professor SMITH

*Prerequisite:* One year in zoology.

**18. Advanced Field Zoology.**—(A continuation of Zoology 17.) Taxonomic or distributional problems in connection with local fauna. *II*; (3-5)<sup>1</sup> [3Q; 3 to 5 quarter hours].  
Professor SMITH

*Prerequisite:* Zoology 17.

[19a-19b. **Advanced Ornithology.**—Not given, 1918-19.]

### Courses for Advanced Undergraduates and Graduates

**11. Experimental Ecology and Geography.**—The physiology of environmental relations; analysis of behavior. World and regional aspects of behavior and ecology, animal distribution as related to climate and vegetation. *I*; (2 or 4)<sup>1</sup> [W11; 1Q; 4 quarter hours].  
Assistant Professor SHELFORD

*Prerequisite:* One year of zoology and senior standing.

[25-26. **Experimental Zoology.**—Experimental embryology; regeneration; heredity; variation; evolution. Laboratory; assigned reading; conference. *I, II*; (5). Not given, 1918-19.  
Professor ZELENY

*Prerequisite:* Two years of university work, including one year in zoological courses.]

<sup>1</sup>In registering for a course with variable credit hours, a student must put down on his study-list, not the possible hours, as shown here, but the number of hours for which he intends to take the course; e.g., not 2-5, but 2, or 3, or 4, or 5.

**63. Ontogeny of Vertebrates.**—Comparative studies of germ layers and organogeny, with plastic and graphic reconstructions. Based chiefly upon Elasmobranchs and Amphibians. Lectures, assigned readings, and laboratory work. (Open to seniors and graduates.) *I*; (2 or 4)<sup>1</sup> [W63; 1Q, 2Q; 2 to 4 quarter hours]. Professor KINGSLEY

**66. Ontogeny of Vertebrates.**—Studies of the development of selected systems of vertebrates. Lectures, assigned readings, and laboratory work. (Open to seniors and graduates.) *II*; (2 or 4)<sup>1</sup> [3Q; 2 to 4 quarter hours<sup>1</sup>]. Professor KINGSLEY

**22-23. Morphology of Vertebrates.**—Detailed studies of systems of organs from the comparative standpoint. Lectures; laboratory work; assigned reading. *I, II*; (2-4)<sup>1</sup> [W22a, 22b, 23a; 1Q, 2Q, 3Q; 2 to 4 quarter hours<sup>1</sup>]. Professor KINGSLEY

*Prerequisite:* Zoology 1, 2, 3, 6.

**21a-21b. Introduction to Zoological Research.**—Morphology, life history, or reciprocal relations of invertebrates, especially parasites of man and other animals. Laboratory; conferences; assigned reading. *I, II*; (2-5)<sup>1</sup> [W21a; 1Q, 2Q, 3Q; 2 to 5 quarter hours]. Professor WARD

*Prerequisite:* One year in zoological courses, and senior standing.

**20a-20b. Current Literature.**—Presentation and discussion of the results of recent zoological investigation. (Open to all students of zoology; should be taken by those intending to graduate with a thesis.) *I, II*; (1) [W20a, 20b, 20c; 1Q, 2Q, 3Q; 1 quarter hour]. Professor ZELNY

*Prerequisite:* Three years of university work, including one year in zoology.

**8a-8b. Senior Thesis.**—Individual work on assigned topics. *I, II*; (5) [W8a, 8b, 8c; 1Q, 2Q, 3Q; 5 quarter hours]. Members of the department

*Prerequisite:* Two years of zoology.

### Courses for Graduates

Students entering on graduate study in the department of zoology should have had two years of undergraduate work in the subject. When chosen as a minor the courses listed for graduates and undergraduates must be preceded by at least one full year's undergraduate work in zoology. Work done at other institutions will be evaluated on conference with the head of the department.

**[102. Vertebrate Morphology.**—The origin of vertebrates, the segmentation of the head, and the morphology of special systems. Lectures; required reading. *Twice a week; I*; ( $\frac{1}{2}$  unit). Not given, 1918-19. Professor KINGSLEY]

**107. Parasitology.**—Structure and life history of animal parasites; their relation to disease; origin and biological significance of parasitism. Conferences; assigned readings; demonstrations. *Twice a week; I, II*; (1 unit) [W107; 1Q, 2Q, 3Q; 1 quarter unit]. Given in 1918-19 and alternate years. Professor WARD

**109-109a. Physiological Ecology.**—The regulatory mechanism of organisms; neutrality, osmotic pressure, immunity, and temperature in relation to natural environments. 109, *twice a week*; 109a, assigned readings and reports. *II*; ( $\frac{1}{2}$  unit each) [W109-109a; 2Q, 3Q; 1 quarter unit]. Given in 1918-19 and alternate years. Assistant Professor SHELFORD

**[110-110a. Economic Ecology.**—Physiology and ecology in problems of fisheries and pollution; insect pests and weather; forestry and conservation. 110, *twice a week*; 110a, assigned reading and reports. *II*; ( $\frac{1}{2}$  unit each). Not given, 1918-19. Assistant Professor SHELFORD]

<sup>1</sup>In registering for a course with variable credit hours, a student must put down on his study-list, not the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

[111. **Experimental Ecology.**—Repetition of published experiments in physiology and ecology. The student selects a topic on animal reactions or on the measurement of osmotic pressure, temperature, acidity, or conductivity, with modern apparatus. *I, II; (½ to 2 units)*. Not given, 1918-19. Assistant Professor SHELFORD]

[115. **Factors of Individual and Racial Development.**—Experimental embryology; regeneration; heredity; variation; evolution. *Twice a week; I, II; (1 unit)*. Not given, 1918-19. Professor ZELENY]

117. **Faunistic Zoology.**—Taxonomy and distribution, with especial reference to the local fauna; laboratory and field work. *Three times a week; I; (½ to 1 unit)* [W117; 1Q, 2Q, 3Q; ½ to 1 quarter unit]. Professor SMITH

121. **Invertebrate Morphology and Parasitology.**—Individual research course. *I, II; (1 to 2 units)* [W121; 1Q, 2Q, 3Q; 1 to 2 quarter units]. Professor WARD

122. **Vertebrate Morphology.**—Individual research course. *I, II; (1 to 2 units)* [W122; 1Q, 2Q, 3Q; 1 to 2 quarter units]. Professor KINGSLEY

123. **Faunistic and Systematic Zoology.**—Individual research course. *I, II; (1 to 2 units)* [W123; 1Q, 2Q, 3Q; 1 to 2 quarter units]. Professor SMITH

124. **Experimental Zoology.**—Individual research course. *I, II; (1 to 2 units)* [W124; 1Q, 2Q, 3Q; 1 to 2 quarter units]. Professor ZELENY

125. **Animal Ecology and Behavior.**—Individual research course. *I, II. Credit to be arranged.* [W125; 1Q, 2Q, 3Q]. Assistant Professor SHELFORD

[127. **Theories of Animal Phylogeny.**—Relations of various groups of animals; significance of so-called intermediate forms; invertebrate larval forms and theories of descent based on them. Lectures; assigned readings; demonstrations. *Once or twice a week; I, II; (1 unit)*. Given in 1919-20 and alternate years. Professor WARD]





PART IV  
THE UNIVERSITY PRESS



# THE UNIVERSITY PRESS

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EDMUND JANES JAMES, Ph.D., LL.D., *President of the University*

HARRISON EDWARD CUNNINGHAM, A.B., *Director of the University Press*

The University of Illinois Press was organized in 1918 to have charge of the work of editing, printing, and distributing the publications of the University.

The University of Illinois publishes, through its several departments and experiment stations, and the scientific bureaus located at the University,<sup>1</sup> the publications named below. A complete list of publications available for sale or free distribution (other than the Annual Register and the announcements of the colleges and schools) is issued by the University Library annually in July. Persons wishing to obtain any of the publications are requested to correspond with the department concerned or with the Director, 161 Administration Building. Libraries and institutions offering material of equivalent value may secure exchanges by corresponding with the University Librarian.

The list of series of publications is as follows:

## AGRICULTURE:

The Bulletin of the Agricultural Experiment Station.

The Circular of the Agricultural Experiment Station.

The Soil Report of the Agricultural Experiment Station.

## ENGINEERING:

The Bulletin of the Engineering Experiment Station.

The Circular of the Engineering Experiment Station.

The Ceramics Bulletin.

## SCIENTIFIC BUREAUS:

The Report of the State Entomologist.

The State Laboratory of Natural History Bulletin.

The Natural History Survey of Illinois.

The State Geological Survey Bulletin.

The State Geological Survey Monographs.

The State Water Survey Bulletin.

The Illinois Coal Mining Investigations Bulletin.

## EDUCATION:

The School of Education Bulletin.

The Bulletins of the High-School Visitor's Office.

The Bulletins of the Bureau of Educational Research.

## ENGLISH:

The Illinois Association of Teachers of English Bulletin.

## LAW:

The Law Bulletin.

## GRADUATE SCHOOL:

The Journal of English and Germanic Philology (quarterly, \$3.00 a year).

The University Studies (occasional).

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<sup>1</sup>See pages 405 to 415.

The University of Illinois Studies in the Social Sciences (monographs, quarterly, \$3.00 a year).

The University of Illinois Studies in Language and Literature (monographs, quarterly, \$3.00 a year).

The Illinois Biological Monographs (quarterly, \$3.00 a year).

#### WAR AND RECONSTRUCTION:

The War Bulletins and Circulars.

In addition to the serials enumerated above, the University has published a number of books, among which may be mentioned the following:

Alumni Record, 1913; 921 pages, \$2.50.

Directory of Matriculants, 1916; 35,000 names, 1,284 pages, \$5.00.

Konungs Skuggsjá, the main MSS. of, in phototypic reproduction, with diplomatic text, 1915; 67 plates, 191 pages, \$15.00.

The Genus *Phoradendron*, 1916; 224 pages, 245 plates, \$2.50.

Semi-Centennial History of the University of Illinois, volume I, by Burt E. Powell, 1918; 631 pages, illust., cloth, \$2.00 and \$2.25; morocco, \$2.50.

Life of Columcille, compiled by Manus O'Donnell in 1532. Edited and translated by A. O'Kelleher and G. Schoepperle. Irish Foundation Series, I; 1918; 516 pages, paper, \$3.50; cloth, \$5.00.

Municipal Documents and other Publications on Municipal Government in the University of Illinois Library, 1917; 49 pages, \$0.25.

List of Serials in the University of Illinois Library, together with those in other libraries in Urbana and Champaign, 1911; 233 pages, \$1.20.

State Documents for Libraries, 1915; 163 pages, \$0.75.

PART V  
UNIVERSITY EXTENSION



# UNIVERSITY EXTENSION

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Extension work has not been organized as a separate administrative unit in the University of Illinois. Several departments, however, have initiated activities, both on the campus and in the State at large, which serve to make some of the facilities of the University available to groups of mature persons who are engaged in various industries and professions.

## AGRICULTURE

Each of the departments of the College of Agriculture does extension work and so far as possible provides special men for this purpose. In addition to this, a separate service known as Agricultural College Extension offers courses in the principles and methods of extension work (see page 238), conducts extension enterprises that do not deal with technical subjects, and cooperates with the other departments in projecting their work in the State.

Some of the more general College extension enterprises are:

(1) A two-weeks course in agriculture, known as the Corn Growers' and Stockmen's Convention, held annually at the College of Agriculture since 1898. The work includes lectures, conferences, and demonstrations in the subjects of stock-judging, milk-testing, farm mechanics, and farm crops.

(2) Agricultural-extension schools of a week's duration. Twenty-seven such schools were held in different parts of the State during 1917-18.

(3) Demonstrations held in connection with soil-fertility and crop fields throughout the State.

(4) Cooperation, by furnishing teachers and lecturers, with other educational agencies for rural communities, e.g., farmers' institutes, special lecture railway trains, the Boys' State Fair School.

(5) Educational exhibits at fairs and expositions.

(6) School and community excursions to the University.

For the Cooperative Extension Service in agriculture and home economics conducted by the University of Illinois and the United States Department of Agriculture, under the provisions of the Federal Smith-Lever Act of May 8, 1914, see pages 398-400.

## CERAMIC ENGINEERING

In addition to the regular four-year technical curriculum, the department of ceramic engineering cooperates with the clay and allied industries by offering annually, at Urbana, during the second and third weeks in January, a two-weeks industrial course in the principles underlying the manufacture of clay products, for those who have not the time nor the preparation required for academic studies. The work includes lectures, laboratory work, practise in firing kilns, and informal gatherings for question-asking. A common-school education is sufficient to enable one to do the work of this course. No charge of any kind is made. The number enrolled in January, 1915, was 47; in January, 1916, 25; in January, 1918, 27. The course was omitted in 1917.

## COOPERATIVE EXTENSION SERVICE

University of Illinois and United States Department of Agriculture Under the Smith-Lever Act

EUGENE DAVENPORT, M.Agr., LL.D., DIRECTOR OF AGRICULTURAL EXTENSION SERVICE

## Agriculture

WALTER FREDERICK HANDSCHIN, B.S., *Vice-Director of Extension Service*  
 GEORGE NELSON COFFEY, Ph.D., *State Leader*  
 JAMES HENRY GREENE, M.S., *State Leader in Junior Extension*  
 JAMES DATER BILSBORROW, B.S., *Assistant State Leader*  
 HAROLD CLAYTON M CASE, B.S., *Assistant State Leader*  
 CHARLES A ATWOOD, B.S., *Assistant State Leader*  
 VERNE VANIMAN, B.S., *Emergency District Demonstration Leader*  
 J C SPITLER, B.S., *Emergency District Demonstration Leader*

## Department Specialists

## Agronomy

JEROME EDWARD READHIMER, B.S., *Professor of Soils*

## Animal Husbandry

DANIEL OTIS BARTO, B.S.

WILLIAM HERSCHEL SMITH, M.S.

## Dairy Husbandry

ERNEST M CLARK, B.S.

CHRIS SIMEON RHODE, B.S.

## Farm Organization and Management

HAROLD CLAYTON M CASE, B.S.

EMIL RAUCHENSTEIN, B.S.

## Horticulture

JOHN WILLIAM LLOYD, Ph.D., *Professor of Olericulture*

ALFRED JOSEPH GUNDERSON, B.S.

## County Advisers

## County

William George Eckhardt, B.S.....	DeKalb
John S Collier, M.S.....	Kankakee
Roy C Bishop, <sup>1</sup> B.S.....	Livingston
Arthur J Gafke, B.S.....	McHenry
Jerome Edward Readhimer, <sup>2</sup> B.S.....	Kane
W B Richards, B.S.....	Kane
Edward B Heaton, B.S.....	DuPage
Chester G Starr, B.S.....	Tazewell
Paul R Lisher, B.S.....	Will
William E Hedgcock, B.S.....	Peoria
Charles Hubert Oathout, B.S.....	Champaign
Lewis W Wise, B.S.....	Iroquois
Charles Judson Mann, B.S.....	Bureau
Ira Sanford Brooks, B.S.....	LaSalle
Francis E Longmire, M.S.....	Grundy
Earl W Rusk, B.S.....	Adams
J H Lloyd, B.S.....	Hancock
David O Thompson, <sup>3</sup> B.S.....	McLean
Frank D Baldwin, B.S.....	Mason
M L Mosher, M.S.....	Woodford
I F Gillmor, <sup>4</sup> B.S.....	Mercer

<sup>1</sup>Resigned November 15, 1918.

<sup>2</sup>Resigned January 31, 1919.

<sup>3</sup>Resigned March 1, 1919.

<sup>4</sup>Resigned January 1, 1919.



Leland Stanford Griffith, B.S.	Lee
Palmer R Edgerton, B.S.	Rock Island
Aaron W Miner, B.S.	Fulton
W E Watkins, B.S.	Lake
J J Doerschuk, B.S.	Randolph
George T Snyder, B.S.	Ogle
John T Montgomery, B.S.	Henry

*Assistant County Advisers*

Eylar Brunskill, B.S.	Livingston
Roy Cross	LaSalle
C L Gunn	DeKalb
Rollo Shaffer, B.S.	Woodford
R E Terhune	Mason
D E Warren, B.S.	Lee
W W Wilson, B.S.	Bureau

*Emergency Demonstration Agents*

R W Dickenson, B.S.	Cass
E H Walworth, M.S.	Clark
C H Rehling, B.S.	Clinton
Melvin Thomas, B.S.	Coles
C C Logan, B.S.	Crawford
F L Johnson, B.S.	DeWitt
W B Gernert, Ph.D.	Edgar
H J Rucker, B.S.	Effingham
E M Phillips, B.S.	Greene
J H Miner, B.S.	Henderson
C J Thomas, B.S.	Jackson
C E Wheelock, B.S.	Jersey
E M D Bracker, B.S.	Knox
E T Ebersol, M.S.	Logan
Sidney B Smith, B.S.	Macon
W P Miller, B.S.	Macoupin
J B Haberkorn, B.S.	Madison
F J Blackburn, B.S.	Marion
R C Doneghue, M.S.	McDonough
Alfred Tate, B.S.	Monroe
A E Snyder, B.S.	Montgomery
G B Kendall, B.S.	Morgan
A L Higgins, B.S.	Moultrie
H B Piper, B.S.	Richland
Earl Price, B.S.	Saline
C H Belting, B.S.	Shelby
I A Madden, B.S.	Sangamon
G F Baumeister, B.S.	Stephenson
C E Durst, M.S.	Union
Arthur Lumbrick, B.S.	Vermilion
R R Wells, B.S.	Warren
W E Hart, B.S.	Williamson
S J Craig, M.S.	Whiteside

*Emergency District Demonstration Agents**District*

O M McGhee, B.S.....	Gallatin, Hardin, Pope
H C McCarrel.....	Pike, Scott, Calhoun
Guy L Shaw.....	Cass, Schuyler
M J Wright, B.S.....	Jo Daviess, Carroll

Under the provisions of the Smith-Lever Act, approved by the President of the United States on May 8, 1914, and the terms of its acceptance by the State of Illinois, the University becomes cooperatively responsible for a system of demonstration service designed to combine the results of scientific discovery with the most approved practise on the farms and in the households of the State.

The most important lines of work undertaken under this act are as follows:

- (1) Cooperation with county farm bureaus in the employment of agricultural advisers.
- (2) Cooperation with county home improvement associations in the employment of a woman adviser.
- (3) Cooperation with local associations in home-economics demonstrations.
- (4) Employment of extension specialists in agriculture and home economics as special advisers in the field.

**HOME ECONOMICS EXTENSION**

ISABEL BEVIER, Ph.M., *Vice-Director of Home Economics Extension*

MAMIE BUNCH, A.B., *State Leader in Home Economics Demonstration*

JULIET LITA BANE, B.S., *Assistant State Leader in Home Economics Demonstration*

NAOMI OLIVE NEWBURN, A.B., *Assistant State Leader in Home Economics Demonstration*

*Department Specialists**Food*

NAOMI NEWBURN, A.B.

*Equipment*

OLIVE BELLE PERCIVAL, B.S.

*Textiles*

MABEL WILKERSON, Ph.B.

*School Lunches*

MARY PACK, A.B.

*Supplemental Staff*

(War Emergency Fund)

GRACE DEETTE TAYLOR, B.S.

EMMA WRIGHT, A.B.

MAUDE BULL, B.S.

KATHERINE K MESSENGER, B.S.

MARTHA STANLEY, B.S.

*County Advisers**County*

Helen Comstock, A.B.....	Adams
Genevieve Lusk, A.B. Asst.....	Adams
Mary E Bronson, Mrs., A.B., B.S.....	Champaign
Susan Wilder, M.S.....	Hancock
Ethel Dole, B.S., M.A.....	Kane
Marguerite Tucker, B.S., M.A.....	Kankakee
Kathleen Chabot, B.S. Asst.....	Kankakee

Helen Glotfelter, B.S.....	LaSalle
Florence Swan, A.B.....	Livingston
Lena Corzine, B.S.....	Logan
Lilla Harkins, M.S.....	Macon
Eva Blair, B.S.....	McHenry
Clara Brian, A.B.....	McLean
Mary E Gildersleeve, A.B.....	Mercer
Genevieve Nowlin, B.S.....	Saline
Alice B Dillon, Mrs., B.S.....	Tazewell
Mary Hoover, B.S.....	Williamson

The service in home economics may be classified as follows:

**1. Correspondence.**—Numerous requests come from individuals and clubs for help in solving some problem of preparing food, planning a house, feeding a child, or in preparing topics for club study. All such requests receive careful attention. In 1917-18, 137,557 responses to such requests were sent out.

**2. Service for Organizations.**—All extension work during this year has been modified to suit war needs. Conservation of food, clothing, fuel, and health are the topics which have been presented from different angles. The following named organizations were repeatedly served, reaching 54,046 people through the regular movable school and lecture service.

Academies	Granges
Boys' and Girls' Clubs	Home Improvement Association
Chamber of Commerce	Household Science Clubs
Child Welfare League	Library Associations
Church Settlements	Parent-Teachers Association
Civic Leagues	Parochial Schools
Colleges	Red Cross
Community Fairs	Soil Improvement Association
Council of National Defense	State Fair
County Fairs	Teachers' Institutes
Farmers' Institutes	Township High Schools
Food Show in 54 towns	Woman's Clubs
	Women's Christian Temperance Union

**3. Movable Schools.**—The department of home economics, in so far as possible, provides instruction on request for a movable school in any community which is sufficiently interested to pay the local expenses (hire of hall, etc.), and the traveling and living expenses for the week of one or two instructors. During the year 1917-18, 79 weeks of instruction were given in 26 counties with a total attendance of 36,100. Through separate lectures and demonstrations 17,946 people were served in 91 counties.

**4. Press.**—The press of the state has been most helpful all year. The conservation letters sent to the 1,035 local papers last year were continued. Enthusiastic support has been accorded the Home Bureau movement in each county where the county agent has been established.

**5. War Emergency.**—The establishment of home demonstration service on a permanent basis was incidental to the Food Conservation campaign in which it was necessary to employ a considerable number of organizers and demonstrators. These women were carefully selected for specific services and through this staff the conservation messages were carried to more than three hundred thousand housekeepers. As a result fifteen counties have organized, pledging \$1,500 each, for the local support of a county adviser. The organizers were:

Mrs. Maud C Hessler.....	State
Miss Ferne Harris.....	District I
Mrs. Ellen Fleming.....	District II
Mrs. Paul Howe.....	District III
Miss Alma Kruse.....	District IV
Mrs. Florence McConnell.....	District V
Miss Louise Robertson.....	District VI
Mrs. Margaret Bangs.....	District VII

The following cities supplied office and office expenses for these advisers appointed under the War Emergency Act:

Chicago.....	Miss Elizabeth Allen
Chicago.....	Mrs. Dora E Duff
Chicago.....	Miss Ethel Lendrum
Chicago.....	Miss Elizabeth Mace
Chicago.....	Miss Winnifred Philleo
Chicago.....	Mrs. Hugo Layer
Chicago.....	Miss Mildred Taber
Alton and Woodriver.....	Miss Isabel Clegg, Madison County
Granite City, Madison and Venice..	Miss Eda Jacob, Madison County
East St. Louis.....	Mrs. Susan B Walcott
Peoria.....	Miss Martha Shopbell
Rockford.....	Miss Jean Stewart
Springfield.....	Miss Geneva Bane

The two groups of towns in Madison County have formed permanent organizations for the support of the demonstration service.

**PART VI**  
**EXPERIMENT STATIONS AND OTHER**  
**SCIENTIFIC BUREAUS**



# THE AGRICULTURAL EXPERIMENT STATION

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT OF THE UNIVERSITY

## STAFF<sup>1</sup>

EUGENE DAVENPORT, M.Agr., LL.D., *Director*  
CYRIL GEORGE HOPKINS,<sup>2</sup> Ph.D., *Vice-Director*  
STEPHEN ALFRED FORBES, Ph.D., *Consulting Entomologist*  
ANNA CUSHMAN GLOVER, *Secretary*

### *In Agronomy*

CYRIL GEORGE HOPKINS,<sup>2</sup> Ph.D., *Chief, Agronomy and Chemistry*  
LOUIE HENRIE SMITH, Ph.D., *Chief, Plant Breeding*  
JEREMIAH GEORGE MOSIER, B.S., *Chief, Soil Physics*  
WILLIAM LEONIDAS BURLISON, Ph.D., *Chief, Crop Production*  
ROBERT STEWART, Ph.D., *Chief, Soil Fertility*  
ALBERT LEMUEL WHITING, Ph.D., *Associate Chief, Soil Biology*  
AXEL FERDINAND GUSTAFSON,<sup>2</sup> M.S., *Assistant Chief, Soil Physics*  
ERNEST VAN ALSTINE,<sup>2</sup> M.S., *Assistant Chief, Soil Analysis*  
FREDERICK CHARLES BAUER,<sup>2</sup> M.S., *Assistant Chief, Soil Fertility*  
FRANK ARCHIBALD WYATT, Ph.D., *Assistant Chief, Soil Fertility*  
HENRY CLYDE WHEELER, B.S., *Associate, Soil Physics*  
JOHN EZRA WHITCHURCH, B.S., *Associate, Soil Fertility*  
WARD HANSON SACHS,<sup>3</sup> B.S., *Associate, Soil Analysis*  
FRANK WILLIAM GARRETT, B.S., *Associate, Soil Fertility*  
FORREST ADISON FISHER, B.S., *Associate, Soil Physics*  
FREDERICK MARTIN WILLIAM WASCHER, B.S., *Associate, Soil Physics*  
WILBUR ROY LEIGHTY, B.S., *Associate, Soil Analysis*  
HOWARD JOHN SNIDER, B.S., *Associate, Soil Fertility*  
HARRY CHARLES GILKERSON,<sup>3</sup> B.S., *Associate, Soil Fertility*  
GEORGE EDWARD GENTLE, B.S., *Associate, Soil Physics*  
HARRISON FRED THEODORE FAHRNKOFF, B.S., *Associate, Soil Fertility*  
ORLAND I ELLIS, B.S., *Associate, Soil Physics*  
ARTHUR MAXWELL BRUNSON, B.S., *Associate, Plant Breeding*  
RAYMOND STRATTON SMITH, Ph.D., *Associate, Soil Physics*  
HENRY AUGUST DE WERFF,<sup>4</sup> B.S., *First Assistant, Soil Physics*  
WARREN RIPPEY SCHOONOVER,<sup>4</sup> M.S., *First Assistant, Soil Biology*  
ROY HANSEN, M.S., *First Assistant, Soil Biology*  
MICHAEL IVANOVITCH WOLKOFF, Ph.D., *First Assistant, Soil Fertility*  
ROBERT WATT STARK, B.S., *First Assistant, Crop Production*  
THOMAS EVERETT RICHMOND, M.S., *First Assistant, Soil Biology*  
EVERETT E GLICK,<sup>3</sup> B.S., *Assistant, Soil Fertility*  
CHARLES THURMAN HUFFORD, B.S., *Assistant, Soil Physics*  
JAMES LEONARD ST JOHN, M.S., *Assistant, Soil Analysis*

<sup>1</sup> The Station Staff includes only those scientific workers who have been recommended by the President and appointed by the Board of Trustees.

<sup>2</sup> On leave.

<sup>3</sup> Resigned.

<sup>4</sup> On leave for military service.

JOHN PIEPER, M.S., *Assistant, Crop Production*  
 GEORGE HARLAN DUNGAN, B.S., *Assistant, Crop Production*  
 HERBERT STASSEN HINRICH, <sup>1</sup> B.S., *Assistant, Soil Physics*  
 WILLEM RUDOLFS, <sup>2</sup> L.K., *Assistant, Soil Analysis*  
 FRANCIS HUGH KELLEY, B.S., *Assistant, Soil Fertility*

*In Animal Husbandry*

HERBERT WINDSOR MUMFORD, B.S., *Chief, Animal Husbandry*  
 HARRY SANDS GRINDLEY, D.Sc., *Chief, Animal Nutrition*  
 WALTER CASTELLA COFFEY, M.S., *Chief, Sheep Husbandry*  
 HENRY PERLY RUSK, M.S., *Chief, Cattle Husbandry*  
 JAMES LLOYD EDMONDS, B.S., *Chief, Horse Husbandry*  
 ROBERT GRAHAM, D.V.M., B.S. in Ag., *Chief, Animal Pathology*  
 JOHN A DETLEFSEN, D.Sc., *Associate Chief, Genetics*  
 HAROLD HANSON MITCHELL, Ph.D., *Assistant Chief, Animal Nutrition*  
 SLEETER BULL, M.S., *Associate, Animal Nutrition*  
 WILLIAM HERSCHEL SMITH, M.S., *Associate, Animal Husbandry*  
 ELMER ROBERTS, Ph.D., *Associate, Genetics*  
 JAMES WILBUR WHISENAND, M.S., *Associate, Animal Husbandry*  
 EARL KIRKWOOD AUGUSTUS, <sup>2</sup> B.S., *Associate, Animal Husbandry*  
 ROY HAROLD WILCOX, B.S., *Associate, Animal Husbandry*  
 JOHN BENJAMIN RICE, B.S., *Associate, Animal Husbandry*  
 HENRY CHARLES ECKSTEIN, M.S., *First Assistant, Animal Nutrition*  
 MARY HELEN KEITH, B.S., A.M., *Assistant, Animal Nutrition*  
 MARY CLAUDIS STAPP, B.S., *Assistant, Animal Nutrition*  
 WORTH ARTHUR ALLISON, A.B., M.S., *Assistant, Animal Husbandry*  
 THOMAS SHERMAN HAMILTON, B.S., *Assistant, Animal Nutrition*

*In Dairy Husbandry*

HARRY ALEXIS HARDING, Ph.D., *Chief, Dairy Bacteriology*  
 NELSON WILLIAM HEPBURN, Ph.D., *Associate Chief, Dairy Manufactures*  
 MARTIN JOHN PRUCHA, Ph.D., *Associate Chief, Dairy Bacteriology*  
 WALTER LEE GAINES, Ph.D., *Associate Chief, Milk Production*  
 HARRISON AUGUST RUEHE, M.S., *Assistant Chief, Dairy Manufactures*  
 FRANK ASHMORE PEARSON, B.S., *Associate, Dairy Husbandry*  
 OLIVER RALPH OVERMAN, Ph.D., *Associate, Dairy Chemistry*  
 JAMES D BREW, <sup>2</sup> B.S., *Associate, Dairy Bacteriology*  
 ERNEST MCCHESENEY CLARK, B.S., *Associate, Dairy Production*  
 FRANK TURNER, <sup>3</sup> B.S., *First Assistant, Dairy Husbandry*  
 LEIGHTON J TRUE, B.S., *First Assistant, Dairy Manufactures*  
 HAROLD K RULISON, <sup>3</sup> B.S., *Assistant, Dairy Husbandry*  
 HARRY ALBERT ROSS, B.S., *Assistant, Dairy Economics*  
 MASON HERBERT CAMPBELL, M.S., *Assistant, Dairy Husbandry*

*In Farm Organization and Management*

WALTER FREDERICK HANDSCHIN, B.S., *Assistant Chief, Farm Organization and Management*  
 JAMES BURTON ANDREWS, B.S., *First Assistant, Farm Organization and Management*  
 EMIL RAUCHENSTEIN, B.S., *Associate, Farm Organization and Management*  
 ELINOR TRAXLER, A.B., *Assistant, Farm Organization and Management*

<sup>1</sup> On leave for military service.<sup>2</sup> Resigned.<sup>3</sup> Absent for military service.



*Horticulture (Station Staff)*

JOSEPH CULLEN BLAIR, M.S., *Chief, Horticulture*  
 JOHN WILLIAM LLOYD, Ph.D., *Chief, Olericulture*  
 CHARLES SPENCER CRANDALL, M.S., *Chief, Plant Breeding*  
 HERMAN BERNARD DORNER, M.S., *Chief, Floriculture*  
 BETHEL STEWART PICKETT, M.S., *Chief, Pomology*  
 ERNEST WINFIELD BAILEY,<sup>1</sup> M.S., *Assistant Chief, Pomology*  
 HARRY WARREN ANDERSON, Ph.D., *Assistant Chief, Pomology*  
 PHILIP AUGUSTUS LEHENBAUER, Ph.D., *Assistant Chief, Plant Physiology*  
 WARREN ALBERT RUTH, A.M., *Associate, Pomology*  
 ALFRED JOSEPH GUNDERSON, B.S., *Associate, Pomology*  
 WILLIAM SANFORD BROCK, A.B., B.S., *Associate, Pomology*  
 HOWARD DEXTER BROWN,<sup>2</sup> M.S., *First Assistant, Olericulture*  
 HOWARD RUSSEL STANFORD, B.S., *First Assistant, Plant Breeding*  
 HARRY WARREN DAY, B.S., *Assistant, Olericulture*  
 JAMES HUTCHINSON, *Associate, Floriculture*  
 EMIL CONRAD VOLZ, M.S., *First Assistant, Olericulture*

By an act approved March 2, 1887, the national government appropriated \$15,000 a year to each state for the purpose of establishing and maintaining, in connection with the colleges founded upon the congressional act of 1862, agricultural experiment stations, "to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science." Under this provision the *Agricultural Experiment Station of the University of Illinois* was founded in 1888 and placed under the direction of the Trustees of the University; a part of the University farm, with buildings, was assigned for its use.

The federal grant has since been increased to \$30,000 a year. This is supplemented by state appropriations which make an aggregate fund of nearly a quarter of a million dollars devoted wholly to research in agriculture.

Investigations are conducted in the growing and marketing of orchard fruits, the methods of production of meats and of dairy goods, the principles of animal breeding and of nutrition, and the improvement of the economic production of crops. All the principal types of soil of the State are being studied in the laboratory under glass and in the field. A soil survey is in progress which when finished will map and describe the soil of every farm of the State down to an area of ten acres. Between forty and fifty fields and orchards are operated in various portions of the State for the study of local problems, and assistants are constantly on the road to conduct experiments or to give instruction to producer or consumer. The results of investigation are published in bulletins, which are issued in editions of 40,000 and distributed free of charge.

Much of this work is of interest to students, especially of graduate grade, and it is freely available for this purpose, so far as is consistent with the interests of the Station.

<sup>1</sup>On leave of absence.

<sup>2</sup>Resigned, November 1, 1918.

# THE ENGINEERING EXPERIMENT STATION

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EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT OF THE UNIVERSITY

## EXECUTIVE STAFF

CHARLES RUSS RICHARDS, M.E., M.M.E., *Director*

FRED DUANE CRAWSHAW, M.E., *Assistant to the Director*

SAMUEL WILSON PARR, M.S., *Professor of Applied Chemistry*

THE HEADS OF THE DEPARTMENTS OF THE COLLEGE OF ENGINEERING

## *Research Corps*

HERBERT FISHER MOORE, M.M.E., *Research Professor of Engineering Materials*

CLINTON MASON YOUNG, E.M., *Assistant Professor of Mining Research, Coal Mining Investigations*

ALONZO PLUMSTED KRATZ, M.S., *Research Assistant Professor of Mechanical Engineering*

HARRISON FREDERICK GONNERMAN, M.S., *Research Assistant Professor of Theoretical and Applied Mechanics*

HAROLD HOUGHTON DUNN, M.S., *Research Associate in Railway Engineering*

LEROY ALONZO WILSON, M.E., M.M.E., *Research Associate in Mechanical Engineering*

SIEBELT LUKE SIMMERING, M.S., M.E., *Research Associate in Mechanical Engineering*

WARD ELY PRATT, M.E., *Special Research Associate in Mechanical Engineering*

VINCENT STEPHEN DAY, B.S., *Special Research Assistant in Mechanical Engineering*

FRANK ERWIN RICHART, M.S., *Research Assistant in Theoretical and Applied Mechanics*

FRANK GUSTAV WAHLEN, B.S., *Research Graduate Assistant in Mechanical Engineering*

WILLIAM RIGA LYON, B.S., *Research Graduate Assistant in Electrical Engineering*

CLEMENCE WILLIAM HIPPARD, B.S., *Research Graduate Assistant in Mining Engineering*

HAN HO HUANG, B.S., *Research Graduate Assistant in Mining Engineering*

MARTHA ISABELLA MCQUEEN,<sup>1</sup> A.B., *Research Graduate Assistant in Ceramic Engineering*

SAMUEL RUSSELL OFFUTT, B.S., *Research Graduate Assistant in Civil Engineering*

WILLIAM LOUIS SCHWALBE, B.S., *Research Graduate Assistant in Theoretical and Applied Mechanics*

GEORGE REED SHELTON, A.B., *Research Graduate Assistant in Ceramic Engineering*

The Engineering Experiment Station was established by action of the Board of Trustees, December 8, 1903. Its purposes are the stimulation and elevation of engineering education, and the study of problems of special importance to professional engineers, and to the manufacturing, railway, mining, and industrial interests of the State and the country.

The control of the Station is vested in the Director and the heads of the several departments of the College of Engineering. These constitute the Executive Staff, which determines the character and extent of the investigations to be undertaken.

Up to the present time 110 bulletins and eight circulars of value to engineering science have been published. The experiments have related chiefly to tests of high-speed tool steels; the resistance of tubes to collapse; the holding power of railroad spikes; the effect of scale on heat transmission; roof trusses; base and bearing plates in columns and beams; stresses in chain links; extensions of the Dewey decimal system of classification; tests of

<sup>1</sup> Resigned.

electric lamps; lighting country homes by private electric plants; street lighting; high steam pressures in locomotive service; rate of formation of carbon monoxide in gas producers; fuel tests; the weathering of coal and the spontaneous combustion of coal; thermal conductivity of fireclay; heat transmissions; freight train resistance; tests of a suction gas producer; tests of concrete; reinforced concrete beams and columns; tests of cast-iron and reinforced concrete culvert pipe; tests of brick columns and terra cotta block columns; tests of timber beams; tests of built-up columns under load; tests to determine the resistance to flow through locomotive water columns; tests of nickel-steel riveted joints; strength of rolled zinc; inductance of coils; mechanical stresses in transmission lines; starting currents of transformers; superheated steam in locomotive service; a new analysis of the cylinder performance of reciprocating engines; effects of cold weather upon train resistance and tonnage rating; coking of coal at low temperatures; characteristics and limitations of the series transformer; electron theory of magnetism; entropy-temperature and transmission diagrams for air; tests of reinforced concrete buildings under load; the steam consumption of locomotive engines from indicator diagrams; properties of saturated and superheated ammonia vapor; reinforced concrete wall footings and column footings; strength of I-beams in flexure; coal washing in Illinois; mortar-making qualities of Illinois sands; bond between concrete and steel; magnetic and other properties of electrolytic iron melted in vacuo; acoustics of auditoriums; tractive resistance of a 28-ton electric car; thermal properties of steam; analysis of coal with phenol as solvent; the effect of boron upon the magnetic and other properties of electrolytic iron melted in vacuo; a study of boiler losses; the coking of coal at low temperatures with special reference to the properties and composition of the products; wind stresses in the steel frames of office buildings; influence of temperature on the strength of concrete; laboratory tests of a consolidation locomotive; magnetic and other properties of iron-silicon alloys melted in vacuo; tests of reinforced concrete flat slab structures; strength and stiffness of steel under biaxial loading; the strength of I-beams and girders; correction of echoes in the Auditorium, University of Illinois; dry preparation of bituminous coal at Illinois mines; specific gravity studies of Illinois coals; graphical methods in electric motor car calculations; subsidence resulting from mining; studies of the alloys of chromium, copper, and nickel; the magnetic properties of iron-aluminum alloys; the effect of mouthpieces on the flow of water through a submerged short pipe; effects of storage on the properties of coal; tests of oxyacetylene welded plates; the economical purchase and use of coal in heating homes; the collapse of short thin tubes; the utilization of pyrite from Illinois coal; the percentage of extraction of bituminous coal; comparative tests of six sizes of Illinois coal on a Mikado locomotive; the economical use of coal in railway locomotives; the storage of coal; passenger train resistance; various experiments in hydraulics; and tests of reinforced concrete buildings and rigidly connected frames.

# THE NATURAL HISTORY SURVEY

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## STAFF

STEPHEN ALFRED FORBES, Ph.D., LL.D., *Chief*  
ROBERT EARL RICHARDSON, A.M., *Biologist in charge of Biological Station*  
VICTOR ERNEST SHELFORD, Ph.D., *Biologist in charge of Research Laboratories*  
WESLEY PILLSBURY FLINT, *Chief Field Entomologist*  
EDWARD MICHAEL SCHALCK, A.B., *Field Entomologist*  
STEWART C CHANDLER, B.S., *Field Entomologist*  
JOHN RUSSELL MALLOCH, *Illustrator and Custodian*  
CHARLES P ALEXANDER, *Systematic Entomologist*  
CHARLES S SPOONER, A.B., A.M., *Entomological Assistant*  
MARY JANE SNYDER, *Secretary*  
CHARLES EDWIN JANVRIN, Ph.B., B.L.S., *Librarian*

Under an act of the State legislature entitled "The Civil Administrative Code," the State Laboratory of Natural History and the State Entomologist's Office have been merged in the Natural History Survey of the State, which succeeds to all the functions of its two predecessors. This Survey, altho one of the divisions of the State Department of Registration and Education, and under the administrative control of the director of that department and an advisory board provided by law, is continued at the University of Illinois.

It is the duty of the Survey, as prescribed by law, to conduct a natural history survey of the state, giving preference to subjects of educational and economic importance; to publish reports covering the entire field of the zoology and botany of the state; to supply natural history specimens to the state educational institutions and the public schools; to investigate the entomology of the state, including all insects dangerous or injurious to agricultural or horticultural crops and plants, to live stock, to nursery trees and plants, to the products of the truck-farm and vegetable-garden, to shade trees and other ornamental vegetation of cities and villages, to the products of mills and warehouses, and all insects dangerous or injurious to the public health; to conduct experiments with methods for the prevention, arrest, abatement, and control of insects injurious to persons or property; to instruct the people, by lecture, demonstration, or bulletin, in the best methods of preserving and protecting their property and health against injuries by insects; and to publish articles on the injurious and beneficial insects of the state.

# THE STATE WATER SURVEY

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## STAFF

EDWARD BARTOW,<sup>1</sup> Ph.D., *Chief*  
WILSON FORSYTH MONFORT, A.M., *Acting Professor*  
GEORGE CONRAD HABERMAYER, B.S., *Acting Chief*  
WILLIAM DURRELL HATFIELD, Ph.D., *Chemist*  
OTTO MITCHELL SMITH, M.S., *Chemist*  
GERALD CLIFFORD BAKER, A.B., *Chemist*  
MINNA ERNESTINE JEWELL, Ph.D., *Chemist*  
MARGARET CAMPBELL PERRY, A.M., *Bacteriologist*  
ESTHER WAGNER, A.B., *Assistant*  
BERTRAM FEUER, *Assistant*  
MELVIN LORENIUS ENGER, M.S., C.E., *Summer Assistant, 1918*  
WALKER WILSON MEANS, *Summer Assistant, 1918*  
JUANITA E DARRAH, M.S., *Summer Assistant, 1918*  
RUSSELL STURKEY BRACEWELL, M.S., *Summer Assistant, 1918*  
S S GANDHEKER, *Summer Assistant, 1918*

A chemical survey of the waters of the State was begun by the State Water Survey Division of the Department of Chemistry of the University of Illinois in the latter part of September, 1895. In 1897 the legislature authorized the continuance of the work and directed the Trustees of the University to establish a chemical and biological survey of the waters of the State. In 1911 the legislature made an increased appropriation and imposed additional duties on the State Water Survey, authorizing it to employ field men and to make, free of charge, sanitary examination of water for citizens of Illinois. In July, 1917, with changes in the state government, the State Water Survey became a Division of the Department of Registration and Education of the State of Illinois.

The work of the Survey is partly under the direction of the Department of Registration and Education of the State of Illinois, and partly under the direction of the Department of Chemistry of the University of Illinois. Offices and special laboratories are equipped in the Chemistry Building for conducting the work.

The Survey has collected data concerning water supplies and sewer systems and many watersheds, making chemical and bacteriological examinations to demonstrate the sanitary condition of water supplies and streams, and to determine standards of purity for drinking waters. The Survey advises municipal authorities how best to obtain and conserve an adequate supply of pure water for domestic and manufacturing purposes. Since 1915 a sewage experimental station has been maintained.

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<sup>1</sup>Absent on leave.

# DEPARTMENT OF REGISTRATION AND EDUCATION

## STATE GEOLOGICAL SURVEY DIVISION

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### STAFF

FRANK WALBRIDGE DEWOLF, B.S., *Chief*, Urbana  
EDWARD BARTOW, Ph.D., *Consulting Chemist in Water Analysis*, University of Illinois, Urbana  
ULYSSES SHERMAN GRANT, Ph.D., *Consulting Geologist in Lead and Zinc Studies*, Northwestern University, Evanston  
SAMUEL WILSON PARR, M.S., *Consulting Chemist in Coal Investigations*, University of Illinois, Urbana  
ROLLIN D SALISBURY, A.M. LL.D., *Consulting Geologist in Preparation of Educational Series*, University of Chicago, Chicago  
EDWARD WIGHT WASHBURN, Ph.D., *Consulting Ceramic Engineer*, Urbana  
CULLEN WARNER PARMELEE, B.Sc., *Consulting Ceramic Engineer*, Urbana  
THOMAS EDMUND SAVAGE, Ph.D., *Geologist*, University of Illinois, Urbana  
STUART WELLER, Ph.D., *Geologist*, University of Chicago, Chicago  
GILBERT H CADY, Ph.D., *Geologist*, Urbana  
WILLIAM ALBERT DUNKLEY, B.S., *Gas Engineer*, Urbana  
CHARLES ROSS SCHROYER, A.M., *Geologist*, Urbana  
HORACE NOBLE CORYELL, A.M., *Assistant Geologist*, Urbana  
NELLIE O BARRETT, B.S., *Assistant Geologist*, Urbana  
HENRIETTA P CHRISTENSEN, B.S., *Assistant Geologist*, Urbana  
JUSTA M LINDGREN, A.M., *Chemist*, Urbana

By act of the General Assembly in March, 1917, the functions and duties formerly exercised by the State Geological Survey Commission were vested in the Department of Registration and Education, with the provision that they continue to be exercised at the University of Illinois. A Board of Natural Resources and Conservation, acting through its sub-committee composed of the Director of Registration and Education, the President of the University of Illinois or his representative, and an expert adviser specially qualified in the field of geologic investigation, decides upon all matters pertaining to geology and allied research, investigational and scientific work; selects and appoints members of the scientific staff pursuing such work; and cooperates with the University of Illinois in the use of scientific staff and equipment, as well as with allied divisions and departments.

In carrying out the primary purpose of the organization, field parties make investigations of oil, clay, coal, stone, artesian water, cement materials, road materials, and general scientific problems. They also conduct surveys for the completion of topographic and geologic maps of the State, in part in cooperation with the United States Geological Survey. Topographic surveys have been completed for almost 30 per cent of the State. Lawrence, Hardin, Randolph, and McDonough counties were added recently to the list of maps which are being made by combining and republishing the atlas sheets in county units.

To date fifty-one volumes, fourteen of them belonging to the Mining Investigations Series, aggregating more than 5,500 pages, have been published, as well as numerous drainage, topographic, structural, and geologic maps.

In obedience to the stimulus of war needs, Survey investigations were directed specifically to many new problems, some of them of great importance. To the coal oper-

ators was made known the need of a greatly increased production of pyrite for use in the manufacture of sulphuric acid, on which the explosives industries of the country depend. The attention of the fluorspar industry was called to the importance of recognizing and saving optical fluorite, so that dependence on foreign supply, handled almost exclusively by German optical dealers, might be overcome. Investigations were begun leading to the development of certain clay deposits in southern Illinois that now yield a product which not only can be substituted for, but which even surpasses, that formerly received from German sources. In view of the shortage of eastern coals and coke, used very generally by Illinois operators in the days before the Fuel and Railroad Administrations established the zone system, considerable attention was given to the solution of difficulties in the use of local coals for the manufacture of water-gas and coal-gas. It is believed that changes in many industries, growing out of the hardships of the war, will prove beneficial and will be of permanent value. In accordance with the suggestion of the National Research Council, a further response to the war was made in the publication of topographic maps and a topographic and geologic report on the Camp Grant area; in it natural features that might be utilized in training and maneuvering are pointed out with the idea of giving the men trained there such an understanding of their camp environment as might have application abroad.

The excellent offices and laboratory quarters provided by the State in the Ceramic Building of the University are now well equipped; office and other furniture belonging to the University, which has been used in the old quarters in the Natural History Building, has been replaced, and modern equipment for filing technical information installed. Thousands of drill records, detailed mine notes, coal analyses, and other data on economic resources of Illinois form an active, growing collection which is invaluable and demands careful permanent preservation, not only because the bulk of it could never be replaced, but primarily because in it the knowledge of the State's mineral resources is contained in great measure.

Under an agreement between the College of Engineering, the United States Bureau of Mines, and the State Geological Survey, a station has been located at Urbana for a cooperative investigation of the Illinois mining industry.

# THE BOARD OF EXAMINERS IN ACCOUNTANCY

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EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT OF THE UNIVERSITY

## BOARD OF EXAMINERS

ALBERT T BACON, C.P.A., *Chairman*, Chicago

BARRY GILBERT, LL.B., Chicago

R O BERGER, C.P.A., *Secretary*, Chicago

## UNIVERSITY COMMITTEE

EDWARD HARRIS DECKER, A.B., LL.B., *Chairman*

CHARLES MAXWELL McCONN, A.M., *Secretary*

MAURICE HENRY ROBINSON, Ph.D.

By a law passed in 1903 the State University is made an examining board of applicants for certificates as certified public accountants. To carry out the provisions of the law the Board of Trustees has appointed a board of three examiners to prepare, conduct, and grade examinations, and a University committee to conduct the routine work. Under the law one examination must be held each year in May, but examinations have been held also in November or December of each year in which there were a sufficient number of applicants. All the examinations thus far given have been held in the city of Chicago.

Applicants for the certificate of Certified Public Accountant are required to pass examinations in the theory of accounts, commercial law, auditing, and practical accounting.

The Illinois Society of Certified Public Accountants offers annually a gold medal and a silver medal to be awarded to the persons passing the C. P. A. examination with the highest total marking in all subjects and with the second highest total marking in all subjects, respectively.



# COOPERATIVE INVESTIGATION OF PROBLEMS OF ILLINOIS MIN- ERAL INDUSTRIES

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EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT OF THE UNIVERSITY

## STAFF

### Engineering Experiment Station

CHARLES RUSS RICHARDS, M.E., M.M.E., *Director*  
HARRY HARKNESS STOEK, B.S., E.M., *Professor of Mining Engineering*  
CLINTON MASON YOUNG, B.S., E.M., *Assistant Professor of Mining Research*  
SPECIAL MINING ENGINEERS AND FIELD SAMPLERS

### State Geological Survey

FRANK WALBRIDGE DEWOLF, B.S., *Chief*  
GILBERT HAVEN CADY, A.B., M.S., *Geologist*  
WILLIAM ALBERT DUNKLEY, B.S., *Gas Engineer*

### United States Bureau of Mines

VAN H MANNING, A.B., *Director*, Washington, D. C.  
GEORGE S RICE, E.M., *Chief Mining Engineer*, Washington, D. C.  
DORSEY A LYON, Ph.D., *Supervisor of Stations*, Washington, D. C.  
ELMER A HOLBROOK, B.S., E.M., *Supervising Mining Engineer and Metallurgist*, Urbana, Illinois  
JULIUS J BOURQUIN, B.S., *Mining Engineer*, Urbana, Illinois  
WILLIAM W ODELL, B.S., *Illuminating Gas Engineer*, Urbana, Illinois  
THOMAS FRASER, B.S., *Junior Engineer*, Urbana, Illinois  
HARRY FAGAN YANCEY, B.S., M.S., *Chemist*, Urbana, Illinois

The Engineering Experiment Station, through the department of mining engineering of the University of Illinois, the State Geological Survey, and the United States Bureau of Mines are cooperating throughout the State in investigations and dissemination of information, with a view to improving conditions in the mining, quarrying, metallurgical, and other mineral industries, safeguarding life among employees, preventing unnecessary waste of resources, and otherwise contributing to the advancement of these industries, under authority granted by the Forty-seventh General Assembly.

The University, through the Engineering Experiment Station, furnishes officers and laboratory facilities for the Bureau in Urbana, and takes part, through the department of mining engineering, both in field work and in publication.

The State Geological Survey adds to the cooperation a staff of geologists who are giving particular attention to the mineral resources of the State and other geological problems.

The United States Bureau of Mines has established a mining experiment station at Urbana, with offices in the Ceramic Engineering Building, which are headquarters for the technical staff of Bureau engineers working in this district.

Through the cooperation of the three contracting parties, a staff of trained engineers, geologists, and metallurgists is at the disposal of the mining and metallurgical industries of Illinois.



PART VII  
THE U. S. SCHOOL OF MILITARY  
AERONAUTICS



# THE U. S. SCHOOL OF MILITARY AERONAUTICS

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On February 7, 1917, the University of Illinois offered the use of its buildings and equipment to the Government for war preparation work. Acceptance of this offer was made on February 10, 1917. The United States School of Military Aeronautics at the University of Illinois was opened on May 21, 1917. The personnel of the United States Army officers and civilian instructors in charge of the school and responsible for the instructional work done changed considerably during the history of the school. The administrative staff at the time the school closed is given below.

## ADMINISTRATION AND HEADS OF DEPARTMENTS

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT OF THE UNIVERSITY

DAVID KINLEY, Ph.D., LL.D., *Vice-President of the University; Executive Head, S.M.A.*

---

JAMES B TAILER, Captain, A.S.A., *Commandant*

FRED DUANE CRAWSHAW, M.E., *President of the Academic Board*

ALFRED H CHAPPELL, 1st Lt., A.S.A., *Adjutant*

FRANK C HENDRY, Captain, A.S.A., *Personnel Officer*

MAYNE SEGUINE MASON, M.S., 1st Lt., A.S.A., *Secretary of the Academic Board*

JOHN M DEVERS, 1st Lt., A.S.A., *Quartermaster*

JAMES H FINCH, Major, Medical Reserve Corps, *Surgeon*

C A PATTERSON, Captain, Dental Reserve Corps, *Dental Surgeon*

F H NAGLE, JR., Captain, A.S.A., *In charge, Department of Military Tactics*

WILLIAM HENRY HYSLOP, A.M., 1st Lt., A.S.A., *Head of Signalling and Radio*

EVERETT S LEE, B.S., 1st Lt., A.S.A., *Head of Gunnery*

GEORGE WELLINGTON PICKLES, C.E., 1st Lt., A.S.A., *Head of Observation*

W PENN LUKENS, M.S., 1st Lt., A.S.A., *Head of Airplanes*

LEROY ALONZO WILSON, M.M.E., 1st Lt., A.S.A., *Head of Engines*

JAMES RUSSELL FLEMING, E.M., 1st Lt., A.S.A., *Head of Aerial Tactics*

HANS PETER GREISON, B.A., Captain, I.N.G., *Head of Military Studies*

On October 14, 1918, a curriculum of instruction for pilots, observers, fighting observers and bombers was inaugurated. Up to this time the curriculum provided only for the instruction of pilots for the air service. On March 11, 1918, a twelve-week curriculum was put into effect. Prior to this time the course was eight weeks long. In both the eight and twelve weeks' course of instruction those subjects which were considered fundamental to the training of an aviator were given. The subjects were arranged by departments, of which there were seven, as indicated in the above list of heads of departments. The departments of Observation and Aerial Tactics were combined in the curriculum furnished by the Schools Branch Office of the Air Service, Washington, D. C.; officially, therefore, there were seven departments including the department of Military Tactics. One squadron, or class, entered each week and one squadron graduated each week. The average size of a squadron for the duration of the school was nearly fifty.

While the eight-weeks curriculum was in progress the School was divided into two wings:

A Junior Wing of three weeks' duration, in which stress was laid on instruction in military studies (i.e., army regulations, military law, military sanitation and hygiene, organization of armies, etc.), and in machine gunnery and telegraphy, together with practical work in military drill.

A Senior Wing, comprising the last five weeks of the course, was devoted more particularly to lectures and laboratory work on signalling, gunnery, aerial tactics, bombs and bombing, theory of flight, cross country flying, map reading, meteorology, night flying, instruments and compasses, construction nomenclature, rigging, care and repair of airplanes, internal combustion engines and their construction, and finally instruction in methods of cooperation between the aircraft and the artillery and infantry.

The total number of hours' instruction in the eight-weeks course was 312; that is, 39 hours a week of actual instruction, inclusive of lectures, laboratory, and drill. The work was of an intensive nature, designed to give the candidate for an Aviation Pilot's License a thoro training in the various branches which are included in the daily work of an aviator. No instruction whatever was given in practical flying, that being reserved for the Aviation Schools.

The twelve-weeks curriculum was not divided into wings. The type of instruction given the Junior Wing in the eight-weeks course was preserved in the twelve-weeks curriculum for the first few weeks of instruction. The curriculum for the middle weeks of the course was technical in character, while instruction under the curriculum for the last few weeks dealt largely with official information. It was deemed wise to eliminate cadets before they reached the third stage of instruction if they failed to show an aptitude for the work of the course.

The total number of hours of instruction in the twelve-weeks course was 440, an average of  $36\frac{2}{3}$  hours per week. Increases in the number of hours of instruction for academic subjects were made for Airplanes, Engines, and map reading in Observation, while the military was increased by 54 hours of Military Tactics and Inspection, and 21 hours for theoretical Military studies.

Members of the school, known as cadets, were graded each week on both laboratory and lecture work. Frequent quizzes were given and final examinations were held in each subject at the time the subject was completed. In addition, an examination was given at the end of the third week. In case of unsatisfactory work a cadet was ordered to repeat one week on the recommendation of the Academic Board and the approval of the Commandant. In no case was a cadet permitted to continue in the School more than nine weeks under the eight-weeks curriculum or thirteen weeks under the twelve-weeks curriculum except by special act of the Board of Examiners which reviewed all cases of deficiency on Saturday of each week; he could be recommended to the Commandant by the Academic Board for discharge at any time, in which case the Academic Board furnished the Commandant a complete scholastic record of the cadet concerned.

Cadets were under military discipline. They were ordered here on active duty as first class privates, were housed and messed in barracks and were subject to the usual restrictions and penalties of the military service. The schedule of studies called for a seven-hour day of class work, including drill, excepting on Saturday, the hours of duty being 5:30 a. m. to 9:30 p. m., with only short periods for recreation. On satisfactory completion of the course, the cadet was certified as having graduated satisfactorily.

Instruction in the School was given in certain rooms in several of the University buildings. The Gymnasium Annex (old Armory) was used entirely for laboratory work. To this building an annex was added, giving an additional laboratory floor area of 7,200 square feet. The School increased in size from twenty-five cadets during the first week

of instruction in May, 1917, to 836 on July 22, 1918. The total number of cadets entering the school during its history of approximately nineteen months was 3,625, of which number 2,691 were graduated and 596 were discharged up to the day when instructional work stopped, November 22, 1918. At this time there were 338 cadets in the School.

Cadets were housed in the Y. M. C. A. building, known as Barracks No. 1, and in the Women's Residence Hall, known as Barracks No. 2. Mess was provided in each of these buildings. Cadets had access to the University libraries, and special library facilities were provided in each barracks. The Engineering College Library arranged a special department of books and periodicals on aeronautics.

It was the purpose of the University of Illinois to furnish every possible facility to promote the work of the School as directed by the War Department. When the School closed, arrangements had been made to provide for enlarged space for certain lines of instructional work which had been congested and to provide additional space for work which had been prescribed but which had not been given, notably instruction in ground flying with Penguins during the last two weeks of the course. The University stood ready to enlarge the facilities for housing the school and to provide all necessary facilities for barracks, mess, and instruction whenever so requested by the War Department.





PART VIII  
THE STUDENTS' ARMY TRAINING CORPS



# THE STUDENTS' ARMY TRAINING CORPS

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## ADMINISTRATION AND HEADS OF DEPARTMENTS

EDMUND JAMES JAMES, Ph.D., LL.D., PRESIDENT OF THE UNIVERSITY

DAVID KINLEY, Ph.D., LL.D., *Vice-President of the University*

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LT.-COL. WILLIAM R ABERCROMBIE, U.S.A., *Commanding Officer*

MAJOR IRVING A OPPERMAN, U.S.A.

CAPTAIN HENRY G SEBASTIAN, D.O.L., *Commanding Officer, Medical Section, Chicago, Ill.*

CAPTAIN SELIM W MYERS, U.S.A., *Adjutant and Senior Military Instructor*

CAPTAIN A C DORRANCE, C.A.C., *Adjutant*

2ND LT. ELLSWORTH A ROBERTS, *Personnel Adjutant*

2ND LT. MILTON WEINSTEIN, Q.M.C., *Quartermaster*

The balance of the officer personnel consisted of fifty second lieutenants.

The Students' Army Training Corps was organized by the Committee on Education and Special Training, a committee of the War Department, composed of army officers and civilian educators, created for the purpose of educating and training men for service in the United States Army. Units of the S. A. T. C. were established in five hundred and fifty universities, colleges, and schools throughout the United States. The minimum number of students required was two hundred, and the maximum thirty-five hundred. The corps was divided into two sections, class A, those who received an academic education, and class B, those who received instruction in mechanical trades. The necessary educational requirement for class A students was a certificate of graduation from some high school of merit and for class B students a completion of the eight grades in grammar school.

The S. A. T. C. Unit established at the University of Illinois was class A entirely. It was organized October 1, 1918, and work started immediately. The induction of the men into the service began October 6, 1918. The Unit was organized into fifteen companies of two hundred men each, and eleven hours weekly were devoted to military drill and instruction.

The men were fully equipped, and regularly enlisted in the United States Army. They were under strict military discipline at all times. The study was supervised by the military authorities and was made compulsory.

In order to subsist and quarter such a large number of men, the University of Illinois went to great expense in completely flooring the Armory and installing a modern kitchen which contained the most improved equipment, such as steam tables, ranges, boilers, meat and bread slicers, and electric dish-washers. This work was delayed somewhat on account of embargoes at that time on the transportation of materials, but through persistence and untiring energy on the part of the University Executive Department every obstacle was overcome and this vast undertaking began to function in time to take care of the men as rapidly as they reported.

There were twenty-six hundred students enrolled in the Army section, four hundred in the Navy section, and three hundred and eighty-five in the University of Illinois College of Medicine at Chicago.

The academic courses were divided into groups and the curriculum arranged so as to cover subjects of value to the various arms of the service, and the men could elect the group or course of study desired.

Those eligible for admission into the S. A. T. C. had to be over eighteen years of age and under twenty-one. Induction was made by the voluntary application of the man to his local board, and this was completed by the board of transfer after the man had passed a thoro physical examination by army surgeons.

Organization had been completed and the men were rapidly developing into valuable material for the Army, and several hundred students had already been transferred to the various Central Officers' Training Schools when the armistice was signed, shortly after which orders were received to demobilize; and this was done December 21, 1918.

PART IX  
LIST OF STUDENTS, ETC.  
(1918-1919)



# LIST OF STUDENTS, 1918-19

## THE GRADUATE SCHOOL

Allison, Worth Arthur—Animal Husbandry B.S., A.B., M.S., 1916, 1917	† ‡ Charleston
Anderson, Chester Reed—English A.B. ( <i>Hedding Coll.</i> ), 1918	* † ‡ Camden
Arms, Ray Walter—Mining and Metallurgy Engineering E.M. ( <i>Ohio State Univ.</i> ), 1912	† ‡ Urbana
* Armstrong, Beulah May—Mathematics A.B. ( <i>Baker Univ.</i> ), 1917	
A.M. ( <i>Univ. of Kansas</i> ), 1918	* † ‡ Hutchinson, Kansas
Armstrong, Nellie Catherine—History A.B. ( <i>Knox Coll.</i> ), 1918	* † ‡ Kewanee
Arnold, Rossleene Merle—Physiological Chemistry A.B. ( <i>Oberlin Coll.</i> ), 1916	
M.S., 1918	† Oberlin, Ohio
Asami, Hiroshi—Theoretical and Applied Mechanics Degree ( <i>Kyoto Imperial Univ.</i> ), 1917	† Kobe, Japan
Atwood, Charles Austin—Animal Husbandry B.S., 1913	† ‡ Urbana
Augustus, Earl Kirkwood—Animal Husbandry B.S., 1914	SS* † Urbana
Austin, James Curtiss—Latin A.B. ( <i>Syracuse Univ.</i> ), 1916	* † ‡ Fulton, New York
Austin, Lois Merrill—French A.B. ( <i>Illinois Wesleyan Univ.</i> ), 1918	* † ‡ Bloomington
Austin, Marion Jewett—English A.B. ( <i>Illinois Wesleyan Univ.</i> ), 1918	* † ‡ Bloomington
Austin, Miner Manly—Chemistry A.B. ( <i>Laurence Coll.</i> ), 1916	
A.M., 1918	* † ‡ Waterloo, Wisconsin
Baily, Henry Heaton—Economics Ph.B. ( <i>Univ. of Chicago</i> ), 1911	* † ‡ Pittsburgh, Pennsylvania
Baker, Gerald Clifford—Chemistry A.B., 1917	* † ‡ Bement
Barnesberger, Velda Christena—Education A.B., 1918	SS * † ‡ Urbana
Bannister, Bryant <sup>1</sup> —Mechanical Engineering B.S., 1911	Ambridge, Pennsylvania
Barnes, Otis Avery—Chemistry B.S., M.S., 1916, 1918	SS * † ‡ Urbana
Barrett, Nellie Okla—Geology B.S. ( <i>Univ. of Chicago</i> ), 1916	† Chicago
Bauer, Frederick Charles—Agronomy B.S., M.S., 1909, 1918	SS Champaign
Beach, Amy Adaline—German A.B., A.M., 1914, 1918	SS Champaign
Bean, Lillian Bertha—English A.B., 1917	* † ‡ Blue Mound
Beilin, David Solomon—Pathology and Bacteriology B.S., 1917	† Wilmette
Benson, Adolph Martin—German A.B. ( <i>Augustana Coll.</i> ), 1916	SS * † ‡ Moline
Berdahl, Clarence Arthur—Political Science A.B. ( <i>St. Olaf Coll.</i> ), 1914	† ‡ Sioux Falls, South Dakota
A.M. ( <i>Univ. of S. Dakota</i> ), 1917	
Berninger, Harriett Josephine—Education A.B., A.M., 1913, 1917	SS Lancaster
Bockius, Doris von Eisen—Chemistry B.S. ( <i>Rockford Coll.</i> ), 1917	* † ‡ Chicago
Bole, Simeon James—Horticulture A.B. ( <i>Univ. of Michigan</i> ), 1906	
A.M., 1912	SS Athens, Michigan
Boughton, Thomas Harris—Pathology S.B., S.M. ( <i>Univ. of Chicago</i> ), 1903, 1904	
M.D. ( <i>Rush Medical Coll.</i> ), 1906	SS * † ‡ Wilmette
Bowman, Mabel—Philosophy A.B., 1917	SS Danville
Bracewell, Russell Starkey—Physical Chemistry A.B. ( <i>Univ. of Kansas</i> ), 1916	
M.S., 1918	* Champaign

<sup>1</sup>Students' Army Training Corps.

<sup>2</sup>Summer Session.

<sup>3</sup>Candidate for professional degree in engineering.

\* † ‡ Attendance first quarter indicated by the asterisk (\*); second quarter, by the dagger (†); third quarter by the double dagger (‡).

Bradley, Manson James—Chemistry A.B., A.M. ( <i>McMasters Univ.</i> ), 1915	* † ‡ Toronto, Ontario, Canada
Brett, Axel—Philosophy A.M. ( <i>Univ. of Minnesota</i> ), 1914	* † ‡ Urbana
Brew, James D.—Bacteriology B.S. ( <i>Cornell Univ.</i> ), 1912	SS * Urbana
Brill, Jesse Hugo—Education A.B. ( <i>Miami Univ.</i> ), 1914	SS Camden, Ohio
Brown, Bruce Keith—Chemistry B.S., 1918	† ‡ Wilmette
Brown, Howard Dexter—Horticulture B.S., M.S., 1914, 1917	SS Tiffin, Ohio
Brown, John Bernis—Chemistry B.S., 1915	* † ‡ Rock Falls
Brown, Pembroke Holcomb—Economics A.B., A.M., 1915, 1917	† Champaign
Brunson, Arthur Maxwell—Agronomy B.S., 1913	† ‡ Joliet
Bull, Sleeter—Animal Husbandry B.S. ( <i>Ohio State Univ.</i> ), 1910 M.S. ( <i>Pennsylvania State Coll.</i> ), 1911	† Urbana
Burlison, William Leonidas—Botany B.S. ( <i>Univ. of Oklahoma</i> ), 1905 M.S., Ph.D., 1908, 1915	SS * † ‡ Urbana
Burton, Mary Cecile—History A.B. ( <i>Univ. of Kansas</i> ), 1917	SS Kansas City, Missouri
Bussell, Nellie Eileen—Education A.B. ( <i>Univ. of Wisconsin</i> ), 1913	SS * † ‡ Spokane, Washington
Butzow, Emma Bertha—German A.B., A.M., 1914, 1918	SS Milford
Butzow, Louis James—Electrical Engineering B.S., 1906	Royal Oak, Michigan
Campbell, Allan Berry—Electrical Engineering B.S., 1909	Ames, Iowa
Campbell, Ethelred Erasmus Adolphus—Organic Chemistry A.B., 1918	* † ‡ Jamaica, British West Indies
Campbell, Mason Herbert—Genetics B.S., 1917	* † ‡ Valparaiso, Indiana
Capps, Arlie Glenn—Education B.S., A.M. ( <i>Univ. of Missouri</i> ), 1916, 1917	* † ‡ Urbana
Carrick, Leo Lehr—Chemistry B.S., A.B., M.S. ( <i>Valparaiso Univ.</i> ), 1909, 1910, 1911 A.M. ( <i>Indiana Univ.</i> ), 1915	† ‡ Urbana
Carrier, Earl Wesley—Civil Engineering B.S., 1918	† ‡ Champaign
Case, Harold Clayton M.—Animal Husbandry B.S., 1912	† Urbana
Cashen, Dorothy Josephine—Botany B.S. ( <i>Carthage Coll.</i> ), 1917	* † ‡ Carthage
Chakravarty, Akhil Chandra—Mechanical Engineering B.S., 1918	† ‡ Bengal, India
Chang, Hung Lieh—Political Science A.B. ( <i>Baldwin-Wallace Coll.</i> ), 1916 A.B., A.M., 1917, 1918	SS * Honan, China
Chen, Jungting—Animal Husbandry B.S., 1918	* † ‡ Canton, China
Chen, Shao-Shun—Crops ( <i>Univ. of Illinois</i> )	† Foochow, China
Chen, Teh Yuen—Chemistry B.S., A.M. ( <i>Soochow Univ.</i> ), 1916, 1917	* Soochow, China
Cheng, Koh Man—Political Science A.B. ( <i>Soochow Univ.</i> ), 1917	† Hong Kong, China
Cherif, John Francis—Latin A.B. ( <i>St. Procopius Coll.</i> ), 1915	SS Antigo, Wis.
Chiles, Howard Marion—Chemistry B.S., 1917	† ‡ Carlinville
Christensen, Henrietta Petrea—Petrography B.S. ( <i>Univ. of Chicago</i> ), 1916	* † Urbana
Christman, Adam Arthur—Chemistry B.S. ( <i>Grinnell Coll.</i> ), 1917	† ‡ Shannon
Clark, Harvey Joseph—History Ph.B. ( <i>Drake Univ.</i> ), 1912	† ‡ Chicago
Clausen, Clara Alice—Spanish A.B., 1916	* Secor
Claycomb, George Blacklane—Zoology Ph.B. ( <i>Adrian Coll.</i> ), 1909 M.S. ( <i>Univ. of Chicago</i> ), 1914	* † ‡ Champaign
Cloyd, Margaret Mary—French A.B. ( <i>J. Millikin Univ.</i> ), 1918	* † ‡ Bement
Cohen, Teresa—Mathematics A.B. ( <i>Goucher Coll.</i> ), 1912 A.M., Ph.D. ( <i>John Hopkins Univ.</i> ), 1915, 1918	† ‡ Baltimore, Maryland

† Candidate for professional degree in engineering.



- Colby, Arthur Samuel—Botany  
B.S. (*New Hampshire Coll.*), 1911  
M.S., 1915
- Coleman, George Hopkins—Chemistry  
B.S. (*Greenville Coll.*), 1915
- Collins, Anna Mary—Zoology  
A.B. (*Buller Coll.*), 1918
- Colver, Charles William—Organic Chemistry  
B.S., M.S. (*Univ. of Idaho*), 1909, 1911
- Colvin, Carl—Education  
B.S., 1912
- Copley, Beatrice Virginia—English  
A.B., A.M., 1915, 1917
- Culver, Harry—Pathology  
M.D. (*Rush Medical Coll.*), 1913  
M.S., 1918
- Curtis, Elisa—Education  
(*Univ. of Illinois*)
- \* Daniels, Lois Virginia—Mathematics  
A.B., 1918
- Davis, Roy Le Fevre—Education  
A.B., A.M. (*Illinois Wesleyan Univ.*), 1915, 1916  
A.M., 1917
- Dawson, Margaret Kate—Physics  
A.B. (*Cornell Coll.*), 1917
- Deahl, Neulon—Chemistry  
B.S., 1918
- Dean, Beatrice Earle—French  
A.B., 1914
- De Turk, Ernest E.—Agronomy  
B.S. (*Purdue Univ.*), 1913  
M.S. (*Pennsylvania State Coll.*), 1916
- Dice, Lee Raymond—Zoology  
A.B. (*Stanford Univ.*), 1911  
M.S., Ph.D. (*Univ. of California*), 1914, 1915
- Dickey, Lloyd Blackwell—Zoology  
A.B. (*Fargo Coll.*), 1915  
A.M., 1917
- Dimmick, Mildred—French  
A.B. (*Columbia Univ.*), 1912
- Donahoe, John Thomas<sup>1</sup>—Electrical Engineering  
B.S., 1914
- Doty, Helene Eleanore—Political Science  
A.B., 1918
- Drobisch, Mollie Moore—History  
(*Univ. of Illinois*)
- Du Frain, Frank James—Education  
A.B., 1916
- Dunbar, Louise Burnham—History  
A.B. (*Mt. Holyoke Coll.*), 1916  
A.M., 1917
- Dungan, George Harlan—Botany  
B.S., 1917
- Dunn, Harold Houghton<sup>1</sup>—Railway Engineering  
B.S., M.S., 1908, 1915
- Durst, Charles Elmer—Genetics  
B.S., M.S., 1909, 1912
- Dyar, Herbert Lee—Education  
A.B. (*Eureka Coll.*), 1905
- Eckstein, Henry Charles—Chemistry  
A.B., M.S., 1915, 1918
- \* Edington, William Edmund—Mathematics  
A.B. (*Indiana State Normal*), 1909
- Edwards, Ray Lee—Physics  
A.B. (*Oberlin Coll.*), 1908  
B.S. (*Ohio Wesleyan Univ.*), 1909  
A.M. (*Ohio State Univ.*), 1911
- Ekblaw, Walter Elmer—Geology  
A.B., A.M., 1910, 1912
- Emmerson, Edith Marie—Latin  
A.B. (*Illinois Coll.*), 1917  
A.M., 1918
- Fager, Daniel Baldwin—Education  
A.B., 1914
- Fahrnkopf, Harrison Frederick Theodore—Agronomy  
B.S., 1913
- Fairman, Charles—History  
A.B., 1918
- Falls, Frederick Howard—Pathology  
B.S. (*Univ. of Chicago*), 1908  
M.D. (*Rush Medical Coll.*), 1910  
M.S., 1916
- Fazel, Helen Belle—English  
A.B. (*Fairmount Coll.*), 1918
- \* † † *Tilton, New Hampshire*
- SS \* † † *Champaign*
- \* † † *St. Louis, Missouri*
- SS \* † † *Moscow, Idaho*
- SS \* † † *Urbana*
- \* † *Joliet*
- SS *Appleton, Wisconsin*
- ‡ *Santiago, Chile*
- \* † † *Tallula*
- † *Potomac*
- \* † † *Monmouth, Iowa*
- † *Champaign*
- SS \* † † *Harrisburg*
- \* † † *Urbana*
- † † *Prescott, Washington*
- ‡ *Esmond, North Dakota*
- \* † † *Cleveland, Ohio*
- Chicago*
- \* † † *Wilmette*
- ‡ *Decatur*
- SS *Momence*
- \* † † *White River Junction, Vermont*
- SS \* † † *Urbana*
- Urbana*
- † *Anna*
- SS *Low Point*
- SS \* † *Peoria*
- † † *Terre Haute, Indiana*
- SS *Delaware, Ohio*
- \* † *Urbana*
- \* † † *Virden*
- SS *Murphysboro*
- † † *Urbana*
- ‡ *Alton*
- SS *Chicago*
- SS *Wichita, Kansas*

<sup>1</sup> Candidate for professional degree in engineering.

Ferguson, Louis Smith <sup>1</sup> —Mechanical Engineering B.S., 1913		Pittsburgh, Pennsylvania
Feuer, Bertram—Chemistry (Univ. of Illinois)	• † ‡	Chicago
Finley, Margaret Alice—Latin A.B., 1918	• † ‡	Hoopston
Fisch, Max Eleazer—Anatomy B.S., 1917	†	Chicago
Fisher, Forrest Adison—Agronomy B.S., 1911	†	Urbana
Fleisig, Anselm Joseph—Mathematics A.B. (St. Procopius Coll.), 1911	SS	Cleveland, Ohio
Fleming, Denna Frank—Political Science A.B., 1916	† ‡	Paris
Fraser, Thomas—Mining Engineering B.S., 1917	†	Urbana
French, Herbert Ephraim—Organic Chemistry A.B. (Morningside Coll.), 1915 A.M., 1917	SS • † ‡	Champaign
Frison, Theodore Henry—Entomology A.B., 1918	† ‡	Champaign
Fritts, Edwin Coulthard—Physics B.S. (Georgetown Coll.), 1917	† ‡	Lexington, Kentucky
Funk, Ruth Scovell—Bacteriology B.S., 1917	SS • † ‡	Urbana
Gage, Jay Howard—Entomology A.B., 1916	• † ‡	Texico
Gager, Gertrude Delé—French A.B. (Western Reserve Univ.), 1913	• † ‡	Cleveland, Ohio
Galster, Augusta Emilie—Economics A.B., 1918	SS • † ‡	Tower Hill
Garvin, Mary Beatrice—Sociology A.B., 1917	SS • † ‡	Champaign
Gaynor, Elizabeth Prudence Webb—History A.B. (Univ. of Wisconsin), 1917	‡	Grand Rapids, Wisconsin
Gehrig, Arthur Gustave—Civil Engineering B.S., 1917	SS • †	Urbana
Gerke, Roscoe Harlan—Chemistry B.S., 1918	† ‡	Greenville
Godlove, Isaac Hahn—Organic Chemistry B.S., A.M. (Washington Univ.), 1914, 1915	• † ‡	St. Louis, Missouri
Gooch, Wilbur Ira—Political Science A.B., 1919	† ‡	Brookings, South Dakota
Green, Charles Francis—Mathematics A.B., A.M. (Univ. of Kansas), 1914, 1915	‡	Soldier, Kansas
Greene, James Henry—Education B.S., M.S., 1908, 1915	SS • † ‡	Urbana
Griffith, Coleman Roberts—Psychology A.B. (Greenville Coll.), 1915	SS • † ‡	Champaign
Griffith, Wendell Horace—Chemistry B.S. (Greenville Coll.), 1917	‡	Greenville
Gross, Alfred William—Education Ph.B. (Northwestern Coll.), 1909 A.M., 1917	SS • † ‡	Urbana
Grove, Pearl Forest—Botany A.B., 1913	SS	Rossville
Guliek, Edward Everett—Education B.L., 1892	SS	Champaign
Gunton, John Aberdeen—Food Chemistry A.B., A.M. (McMasters Univ.), 1916, 1917	• † ‡	Simcoe, Ontario, Canada
Gusler, Gilbert—Animal Husbandry B.S. (Ohio State Univ.), 1912 M.S., 1918	‡	Urbana
Gwinn, Paul Curtis—Chemistry A.B. (Indiana State Normal), 1917	† ‡	Terre Haute, Indiana
Hague, Florence Sander—Zoology A.B., B.S., M.S. (Univ. of Kansas), 1911, 1913, 1914	SS • † ‡	Urbana
Hall, Edward Knight—Animal Husbandry B.S., 1918	† ‡	Ladybrand, South Africa
Hamilton, Thomas Sherman—Chemistry B.S., 1917	† ‡	Paris
Hanna, Helen Irene—German A.B. (Central Coll.), 1916 A.M., 1918	SS	Epworth, Iowa
Hansen, Roy—Agronomy B.S., M.S., 1914, 1918	† ‡	Rock Island
Hare, Fay Charles—Entomology A.B., 1913	‡	Gilman
Harrah, Ezra Clarence—Zoology A.B. (Southwestern Coll.), 1913	• † ‡	Urbana
Harwood, Hazel May—Education A.B. (Vassar Coll.), 1908	SS	Shebysville
Heidler, Joseph Bunn—English A.B., 1918	‡	Springfield

<sup>1</sup> Candidate for professional degree in engineering.

Heinekamp, Walter John Richard—Pharmacology (Undergraduate work completed)	†	Chicago
Henry, Donald Alison <sup>1</sup> —Electrical Engineering B.S., 1909		Springfield
Higgins, George Marsh—Zoology B.S. ( <i>Knox Coll.</i> ), 1914 A.M., 1916	† †	Urbana
Hill, Charles Francis—Experimental Physics A.B., A.M., 1914, 1916	• † †	Urbana
Hinds, Helene Lois—English A.B. ( <i>Univ. of Arkansas</i> ), 1916 A.M. ( <i>Vanderbilt Univ.</i> ), 1917	•	Fayetteville, Arkansas
Hippard, Clemence William—Mining Engineering B.S. ( <i>Missouri School of Mines</i> ), 1917	• † †	Urbana
Hobler, Mrs. Harriet Wells—History A.B. ( <i>Rockford Coll.</i> ), 1882 A.M., 1917	• † †	Batavia
Hoelschier, Randolph Philip—Experimental Physics B.S. ( <i>Purdue Univ.</i> ), 1912	†	Urbana
Hofacker, Olga Vera—English A.B., 1911	SS	Morton
Honey, Myrtle Evaline—Bacteriology B.S., 1918	SS	Dixon
Horne, Charles Ellsworth—Mathematics A.B. ( <i>Waynesburg Coll.</i> ), 1897 A.M. ( <i>Harvard Univ.</i> ), 1904 Ph.D. ( <i>Univ. of Chicago</i> ), 1907	SS	Washington, Pennsylvania
Hottes, Flora Emily—English A.B., 1918	• † †	Urbana
Howell, Lloyd Brelsford—Organic Chemistry A.B. ( <i>Wabash Coll.</i> ), 1909 M.S., 1918	SS	• † † Urbana
Huang, Han Ho—Mining Engineering B.S. ( <i>Harvard Univ.</i> ), 1917	• † †	Amoy, China
Hufferd, Ralph William—Organic Chemistry A.B. ( <i>Washington Univ.</i> ), 1915 A.M., 1917	SS	† Urbana
Humphreys, Florence Miller—English A.B. ( <i>Colorado Coll.</i> ), 1912 A.M. ( <i>Radcliffe Coll.</i> ), 1915	• † †	Denver, Colorado
Hunsaker, Andrew Franklin—Political Science A.B., A.M., 1909	• † †	Champaign
Hurlbut, Dorothy Nadine—Home Economics B.S. ( <i>Milwaukee-Downer Coll.</i> ), 1918	•	Fort Dodge, Iowa
Hutchinson, Sue—Education B.S. ( <i>Univ. of Missouri</i> ), 1911	• † †	Vandalia, Missouri
Hyslop, William Henry—Physics A.B. ( <i>Knox Coll.</i> ), 1908 A.M., 1911	† †	Urbana
Inglar, Francis Marion—Education A.B., A.M. ( <i>Univ. of Indiana</i> ), 1903, 1906	SS	Petersburg, Indiana
Irshay, Zoltan—Philosophy A.B. ( <i>Lake Forest Coll.</i> ), 1918	• † †	Iszaujlak, Hungary
Jacobs, Jessie Marie—Mathematics A.B. ( <i>McPherson Coll.</i> ), 1914 A.M. ( <i>Univ. of Kansas</i> ), 1916	• † †	McPherson, Kansas
Jacquin, Wentworth Cory—Political Science A.B., 1918	†	Peoria
Jennings, Walter Wilson—History A.B., A.M., 1915, 1916	SS	Champaign
Jeude, Edward Arthur—Chemistry A.B., 1918	• † †	St. Louis, Missouri
Johnson, Olive Beatrice—Chemistry B.S. ( <i>Rockford Coll.</i> ), 1914	• † †	Duluth, Minnesota
Jones, Robert Taylor—Architecture B.S., 1912		Urbana
Jones, William Bristow—English A.B., A.M. ( <i>Georgetown Coll.</i> ), 1905	• † †	Urbana
Jorgensen, Mrs. Sarah McMillen—Psychology A.B., 1909	SS	Monmouth
Junkin, Della Darle—Chemistry A.B. ( <i>Univ. of Michigan</i> ), 1912	• † †	Great Falls, Montana
Kamm, Rufus Maurice—Organic Chemistry B.S., 1916	†	Highland
Kawamura, Tamiji—Zoology Degree ( <i>Tokyo Imperial Univ.</i> ), 1908	†	Kioto, Japan
Keen, Dora—Education A.B. ( <i>Georgetown Coll.</i> ), 1916 A.M., 1917	• † †	Champaign
Kirby, Alma Lenore—French A.B. ( <i>Eureka Coll.</i> ), 1916	SS	Eureka

<sup>1</sup> Candidate for professional degree in engineering.

- Kirner, Walter Raymond—Chemistry  
B.S., 1918
- Klaragard, Sever—Economics  
A.B. (*St. Olaf Coll.*), 1917
- Knight, Abner Richard—Electrical Engineering  
M.E. (*Ohio State Univ.*), 1909  
M.S., 1917
- Kordenat, Ralph August—Pathology  
(Undergraduate work completed)
- Krafka, Joseph, Jr.—Zoology  
A.B., A.M. (*Lake Forest Coll.*), 1915
- Kraft, Adolph—Bacteriology  
(Undergraduate work completed)
- Lantz, Cyrus William—Plant Physiology  
A.B., A.M., 1913, 1914
- Lapp, Claude Jerome—Physics  
A.B. (*Auburn Coll.*), 1917
- Leighty, Wilbur Roy—Chemistry  
B.S. (*Illinois Wesleyan Univ.*), 1910
- Leisy, Ernest Erwin—English  
A.B. (*Univ. of Kansas*), 1913  
A.M. (*Univ. of Chicago*), 1917
- Levinson, Samuel Azor—Anatomy  
B.S., 1917
- Libman, Anita—History  
A.B., 1918
- Lilman, Earl Emanuel—Chemistry  
B.S., 1916
- Livingston, George Shaynin—Bacteriology  
B.S. (*Cornell Univ.*), 1916
- Lopez, Manuel Leon—Romance Languages  
A.B. (*Ohio Wesleyan Univ.*), 1916
- Love, Beryl Franklin—Physics  
A.B., 1918
- Luce, Harold Walker—Organic Chemistry  
A.B. (*Lawrence Coll.*), 1918
- Lyon, William Riga—Electrical Engineering  
B.S. (*Worcester Poly. Inst.*), 1917
- McCaughy, William Frank—Architectural Design  
A.B. (*Carnegie Inst. of Technology*), 1916
- McClellan, Mary Emmeline—French  
A.B. (*Monmouth Coll.*), 1918
- McClure, William Lionel—Chemistry  
A.B. (*Drury Coll.*), 1916
- McCombs, Frank Harold—Chemistry  
B.S. (*Hooster Coll.*), 1916
- McCrumb, Fred Rodgers—Chemistry  
B.S. (*Westminster Coll.*), 1917
- MacDonald, Gladys Elizabeth—Chemical Engineering  
A.B. (*Milwaukee-Downer Coll.*), 1917
- McGinnis, Helen Anastasia—Botany  
A.B., 1918
- McHarry, Lisette Jane—English  
A.B., 1912
- McKillop, A'an Dugald—English  
A.B., A.M. (*Harvard Univ.*), 1913, 1914
- McKinney, Henry Theodore—Education  
A.B. A.M., 1913, 1915
- McPherson, Archibald Turner—Chemistry  
A.B. (*Trinity Univ.*), 1914  
A.M. (*Univ. of Texas*), 1916
- McQueen, Martha Isabella—Chemistry  
A.B. (*Milwaukee-Downer Coll.*), 1918
- Marais, Jacobus Stephanus—Sols  
A.B. (*Univ. of Cape Good Hope*), 1917
- Marberry, James Oscar—Education  
A.B. (*Ewing Coll.*), 1908  
A.M. (*Univ. of Wisconsin*), 1916
- Marvel, Carl Shipp—Organic Chemistry  
A.B. (*Illinois Wesleyan Univ.*), 1915  
A.M., 1916
- Marx, Victor Emanuel—Chemistry  
B.S. (*Armour Institute*), 1916
- Matsuura, Haruo—Mechanical Engineering  
Degree (*Tokyo Imperial Univ.*), 1911
- Matthews, Albert Otto—Chemistry  
A.B., 1918
- Maynard, Milton Monroe—Education  
A.B. (*Univ. of Oklahoma*), 1908
- Merling, Ruth Evelyn—Organic Chemistry  
B.S., M.S. (*Univ. of Washington*), 1916, 1917
- Merrymon, William Walter—Physics  
A.B. (*Univ. of Missouri*), 1912  
A.M., 1917
- † † Chicago
- \* † † Buxton, North Dakota
- SS † † Urbana
- Oak Park
- SS \* † † Ottumwa, Iowa
- Gilman
- † † Brooklyn
- † † Richmond, Michigan
- \* † † Urbana
- \* † † Newton, Kansas
- † Chicago
- † † Chicago
- \* † † Urbana
- † Chicago
- \* † † Champaign
- \* † † Danville
- † † Hancock, Wisconsin
- † † Worcester, Massachusetts
- † † Urbana
- \* † † Benson, Minnesota
- † † Lawton, Oklahoma
- † † Martins Ferry, Ohio
- † † New Wilmington, Pennsylvania
- † † Milwaukee, Wisconsin
- \* † † Chicago
- SS Champaign
- † Lynn, Massachusetts
- SS \* † † Hudgens
- † Waxahachie, Texas
- \* † Elgin
- SS \* † † Stellenbosch, South Africa
- SS Reevesville
- \* † † Urbana
- \* Chicago
- \* † Kogawaken, Japan
- † † Washington, D. C.
- SS Mt. Vernon, Missouri
- \* † † Ellensburg, Washington
- \* † † Carbondale

Millar, Russell Ward—Physical Chemistry B.S., 1916	† Mattoon
Mirasol, Jose Jison—Agronomy B.S.A., M.S. ( <i>Univ. of Philippines</i> ), 1915, 1917	* † † Los Banos, Philippine Islands
Moor, Hubert Watson—Organic Chemistry B.S., 1917	* Champaign
Moore, Josiah John—Pathology B.S. ( <i>Univ. of Montana</i> ), 1907	SS Onacanda, Montana
Morrison, Lethe Eleanora—Bacteriology ( <i>Univ. of Illinois</i> )	† Waterloo
Morrison, Olin Dee—History A.B. ( <i>Wabash Coll.</i> ), 1915 A.M. ( <i>Univ. of Indiana</i> ), 1917	† † Urbana
Myers, Arthur Leslie—Mechanical Engineering B.S., 1913	La Crosse, Wisconsin
Myers, Lena Josephine—English A.B., A.M., 1913, 1918	* † † Quincy
Myers, Myron Arthur—Psychology B.S. ( <i>Dartmouth Coll.</i> ), 1913	* † † Urbana
Needham, Catherine—English A.B., 1918	* † † Urbana
Neff, Harold Alpha—History A.B., 1918	† † Rochelle
Neill, Alma Jessie—Physiology A.B., A.M., 1913, 1915	† † Chillicothe
Nolan, Aretas Wilbur—Education M.S. ( <i>Univ. of W. Virginia</i> ), 1911	* † † Urbana
Oberhelman, George Otto—Chemistry A.B., A.M. ( <i>Yale Univ.</i> ), 1910, 1914	† † Norwood, Ohio
O'Brien, John Anthony—Education A.B., A.M. ( <i>St. Viator Coll.</i> ), 1913, 1915	SS * † † Peoria
Offutt, Samuel Russell—Civil Engineering B.S. ( <i>Colorado Coll.</i> ), 1918	* † † Bloomfield, Kentucky
Okimoto, Saichi—Dairy Husbandry Degree ( <i>Tohoku Imperial Univ.</i> ), 1916	† Hiroshima, Japan
Olin, Franklin Walter, Jr.—Chemistry B.S. ( <i>Cornell Univ.</i> ), 1912	* Alton
Ondrak, Ambrose Leo—Physics A.B. ( <i>St. Procopius Coll.</i> ), 1915	SS Chicago
Parkinson, Elva Lucile—French A.B. ( <i>Eureka Coll.</i> ), 1918	* † † Maxwell
Patterson, Cecil Frederick—Pomology B.S. ( <i>Univ. of Toronto</i> ), 1918	† † Watford, Ontario, Canada
Pieper, John—Agronomy B.S., M.S., 1917	SS * † † Urbana
Pike, Carl Eli—Physics B.S. ( <i>Cornell Coll.</i> ), 1916 M.S., 1918	SS Central City, Iowa
Pires, Margaret Josephine—Home Economics B.S. ( <i>Illinois Woman's Coll.</i> ), 1918	* † † Jacksonville
Polkowski, Anna—Psychology ( <i>Univ. of Illinois</i> )	† Urbana
Powell, Sargent Gastman—Organic Chemistry B.S., M.S. ( <i>Univ. of Washington</i> ), 1916	SS * † † Seattle, Washington
Powers, J. Orin—Education A.B., A.M., 1917, 1918	* † † Urbana
Pruitt, Lorel Atta—English A.B. ( <i>Franklin Coll.</i> ), 1918	* † † Edinburg, Indiana
Putnam, William James—Theoretical and Applied Mechanics B.S., 1910	* † † Urbana
Quick, Ray Stuart—Electrical Engineering B.S. ( <i>Univ. of California</i> ), 1916	† † Berkeley, California
Raab, Anita Emma—French A.B., 1916	SS Belleville
Ragland, Lewis Washington—Education A.B., 1919	† † Urbana
Raines, Lester Courtney—Psychology A.B., 1918	SS Urbana
Rauchenstein, Emil—Economics B.S. ( <i>Univ. of Wisconsin</i> ), 1911	† Rice Lake, Wisconsin
Rayner, William Horace—Education B.S., 1909	SS † † Urbana
Read, Orlan Bertrand—Chemistry Ph.B., Ph.D. ( <i>Hillsdale Coll.</i> ), 1892, 1902 A.M. ( <i>Univ. of Wisconsin</i> ), 1910	SS Urbana
Reader, Emma Grace—Food Chemistry A.B., 1918	SS Centralia
Reed, Cordelia—French A.B., 1918	* † † Covington, Indiana
Reed, Ralph Daniel—Geology B.S. ( <i>Hiram Coll.</i> ), 1913	* † † Urbana
Reeder, John Corwin—Education A.B., 1917	SS Geneseo

† Candidate for professional degree in engineering.

- Reid, Dwight Logan—Education  
A.B., M.S. (*Univ. of Wisconsin*), 1915, 1918
- Reinsch, Bernhard Paul—Mathematics  
A.B., 1918
- Renich, Mary Emma—Plant Physiology  
A.B., A.M., 1911, 1912
- Renner, Theresa Marie—Chemistry  
B.S. (*Blackburn Coll.*), 1915
- Rhodon, Alvis Lemuel—Education  
A.B. (*Georgetown Coll.*), 1899  
A.M. (*Washington Univ.*), 1901
- Rice, John Benjamin—Animal Husbandry  
B.S. (*Univ. of Nebraska*), 1915
- Richards, Olive Arey—Chemistry  
B.S., 1918
- Richardson, Clarence Hudson—Mathematics  
B.S. (*Univ. of Kentucky*), 1913  
M.S., 1918
- Richmond, Thomas Everett—Agronomy  
A.B., M.S. (*Ohio State Univ.*), 1913, 1914
- Rindfus, Ralph Emerson—Organic Chemistry  
A.B., A.M. (*Oberlin Coll.*), 1911, 1916
- Ripley, Lewis Bradford—Entomology  
B.S. (*Trinity Coll.*), 1915  
M.S., 1916
- Rizer, John Kentworth—History  
A.B. (*Carthage Coll.*), 1895  
A.M. (*Augustana Coll.*), 1908
- Robinson, Myra Jane—Chemistry  
(*Univ. of Illinois*)
- Root, Lucile Emma—Chemistry  
A.B. (*Oberlin Coll.*), 1917
- Rosenbach, Joseph Bernhardt—Mathematics  
A.B. (*Univ. of Colorado*), 1917
- Rouse, Charles Albert—English  
Ph.B., A.M. (*Univ. of Chicago*), 1910, 1913
- Rudolfs, Willem—Botany  
Degree (*Wageningen Univ., Holland*)
- Ruehe, Harrison August—Dairy Bacteriology  
B.S., M.S., 1911, 1916
- Russell, Marcena Estle—Mathematics  
A.B. (*Rockford Coll.*), 1918
- Ruth, Warren Albert—Botany  
A.B., A.M. (*Wabash Coll.*), 1906, 1909
- Sachs, Ward Hanson—Chemistry  
B.S. (*Illinois Wesleyan Univ.*), 1910  
A.M. (*Univ. of Missouri*), 1917
- Saelehoef, Clarence Charles—Pathology  
(Undergraduate work completed)
- St. John, James Leonard—Chemistry  
A.B. (*Low State Teacher's Coll.*), 1915  
M.S. (*Purdue Univ.*), 1918
- Sakaguchi, Tokusaburo—Theoretical and Applied Mechanics  
Degree (*Tohoku Imperial Univ.*), 1916
- Sargent, Rachel Louisa—Latin  
A.B. (*Bates Coll.*), 1914  
A.M., 1917
- Saunders, Mrs. Alta Gwinn—English  
A.B., A.M., 1907, 1910
- Schachter, Joseph Andrew—Pathology and Bacteriology  
B.S., 1917
- Schlichten, Carl von—Geology  
A.B. (*Univ. of Cincinnati*), 1918
- Schott, Florence Nightingale—Chemistry  
B.S. (*Northwestern Univ.*), 1917
- Schulz, Ernest Rudolf—Agronomy  
B.S., M.S., 1916, 1917
- Schwalbe, William Louis—Theoretical and Applied Mechanics  
B.S. (*Univ. of Wisconsin*), 1911
- Secord, Arthur Wellesley—English  
A.B. (*Greenville Coll.*), 1916
- Seiler, Eleanor Frances—Experimental Physics  
A.B., A.M. (*Univ. of Denver*), 1913, 1914
- Seuerian, Arshag Kilbjian—Zoology  
A.B. (*Ripon Coll.*), 1918
- Severson, Burns Oscar—Animal Husbandry  
B.S. (*Univ. of Wisconsin*), 1910  
M.S. (*Pennsylvania State Coll.*), 1915
- Shaffer, Owen Vernon—Chemistry  
B.S. (*Westminster Coll.*), 1915
- Shawl, Ray Iris—Animal Husbandry  
B.S., 1916
- Shelton, George Reed—Chemistry  
A.B. (*Univ. of Chicago*), 1912
- Sladek, George Edward—Chemistry  
B.S., 1917
- † † Urbana
- † † Muscatine, Iowa
- SS • † † Clinton
- Carlinville
- SS Somerset, Kentucky
- † Champaign
- SS St. Louis, Missouri
- SS Buffalo, Kentucky
- † † East Cleveland, Ohio
- SS Urbana
- Glastonbury, Connecticut
- † † Champaign
- † † Kansas
- † † Albion
- † † Albuquerque, New Mexico
- † † New Albany, Indiana
- Wageningen, Holland
- SS † † Urbana
- † † Hammond, Indiana
- SS • † † Urbana
- Urbana
- Chicago
- † Urbana
- † Olam, Japan
- † † Exeter, New Hampshire
- † Urbana
- † Chicago
- † † Cincinnati, Ohio
- † † Chicago
- † † Urbana
- † † Milwaukee, Wisconsin
- † † Greenville
- † † Denver, Colorado
- † † Ripon, Wisconsin
- SS State College, Pennsylvania
- † † New Wilmington, Pennsylvania
- † Ohio
- † † Urbana
- † † Chicago

Slaughter, Mrs. Golden Danely—French A.B., 1902	• †	Urbana
Sloan, William Finlay—Vocational Education B.S., 1916	SS	Bowen
Smith, Carl Ambrose—Education A.B. ( <i>Wabash Coll.</i> ), 1913	SS	New Ross, Indiana
Smith, Clara Mabel—Education A.B., A.M., 1917, 1918	SS	St. Clair, Michigan
Smith, Otto Mitchell—Chemistry B.S. ( <i>Drury Coll.</i> ), 1907	•	Urbana
Smith, Vivian Thomas—Education A.B. ( <i>Greenville Coll.</i> ), 1916	SS	Momence
Smithson, Frederick Charles Maxted—Organic Chemistry A.B., M.S. ( <i>Illinois Wesleyan Univ.</i> ), 1915, 1916	SS	London, England
Snider, Howard John—Agronomy B.S., 1913	† ‡	Urbana
Soto, Rafael Arcangel—Spanish B.S., A.B., A.M., 1912, 1915, 1917	• † ‡	Urbana
Sotola, Jerry—Botany E.S., 1918	• † ‡	Chicago
Spencer, Cynthia Eugenia—Botany A.B., 1917	SS	Champaign
Spencer, Edwin Rollin—Botany A.B., A.M., 1911, 1914	• † ‡	Rushville
Spencer, Robinson—German A.B. ( <i>Wesleyan Univ.</i> ), 1903 B.L.S., 1918	SS	Urbana
Spooner, Charles Stockman—Entomology A.B. ( <i>Cornell Univ.</i> ), 1907 A.M., 1917	• † ‡	Urbana
Stanford, Howard Russel—Horticulture B.S., 1908	†	Urbana
Stapp, Mary Claudis—Animal Nutrition A.B. ( <i>Western Coll.</i> ), 1918	• † ‡	Columbus Junction, Iowa
Stearn, Allen Edwin—Physical Chemistry A.B., A.M. ( <i>Stanford Univ.</i> ), 1915, 1916 M.S., 1917	SS	• † ‡ St. Louis, Missouri
Stearns, Genevieve—Physiological Chemistry B.S. ( <i>Carleton Coll.</i> ), 1912	• † ‡	Hill City, Minnesota
Steed, Helen Sidney—Latin A.B. ( <i>Illinois Coll.</i> ), 1918	• † ‡	Bloomington
Steimley, Leonard Leo—Mathematics A.B., A.M. ( <i>Univ. of Indiana</i> ), 1912, 1913	SS	• † ‡ Urbana
Stephenson, Bird Richard—Physics A.B. ( <i>Albion Coll.</i> ), 1916 A.M., 1917	• † ‡	Champaign
Stinson, Marguerite Marie—Education A.B. ( <i>Hedding Coll.</i> ), 1916	SS	Buda
Strem, Carl Eric Samuel—Chemistry A.B. ( <i>Whittier Coll.</i> ), 1917	† ‡	De Kalb
Swigert, Blanche Belle—English A.B., 1918	•	Rapatee
Takasu, Akira—Economics Degree ( <i>Tohoku Imperial Univ.</i> ), 1911	† ‡	Tokyo, Japan
Taylor, Norris Onslow—Chemistry B.S., 1918	† ‡	Geneseo
Tehon, Mrs. Mary Bruner—Education A.B., A.M., 1913, 1916	SS	Mattoon
Thayer, Floyd Kinyon—Chemistry A.B. ( <i>Univ. of Denver</i> ), 1918	† ‡	Denver, Colorado
Thompson, Francis—Education A.B., 1915	SS	Pinckneyville
Tomecko, Cyprian George—Chemistry A.B. ( <i>St. Procopius Coll.</i> ), 1917	SS	Lipton, Canada
Tong, Teh Chang Yee-Cheng—Political Science A.B., 1917	• † ‡	Hunan, China
Trowbridge, Mary Luella—Latin A.B., A.M., 1915, 1916	† ‡	Green Valley
Turnquist, Elmer Nels—Experimental A.B., 1918	• † ‡	Canton
Udinski, William Phillip—Physics B.S., 1918	† ‡	Jersey City, New Jersey
Uhlendorf, Bernhard Alexander—German A.B., A.M. ( <i>Washington Univ.</i> ), 1915, 1916	† ‡	St. Louis, Missouri
Ulich, Lynne Herman—Chemistry B.S. ( <i>Grinnell Coll.</i> ), 1914 M.S., 1918	SS	• † ‡ Villisca, Iowa
Valentine, Roger Wendell—Economics A.B. ( <i>McKendree Coll.</i> ), 1916	†	Mt. Vernon
Van Winkle, William Alexander—Industrial Chemistry B.S. ( <i>Univ. of Michigan</i> ), 1911 M.S., 1917	SS	• † ‡ Bay City, Michigan
Ver Nooy, Lester Carlton—Zoology A.B. ( <i>Amherst Coll.</i> ), 1916 A.M., 1918	•	Cortland, New York

Vliet, Elmer Bennett—Chemistry B.S., 1918	† † Joliet
Vogele, Alfred Charles—Botany B.S., 1918	* † † Urbana
Vose, Veda Mae—German A.B. ( <i>Eureka Coll.</i> ), 1918	* † † Eureka
Wagner, Esther Angelica—Chemistry A.B., 1918	* † † Forest Park
Wahlen, Frank Gustave—Mechanical Engineering B.S. ( <i>Tufts Coll.</i> ), 1917	* † † Montpelier, Vermont
Walker, Marjorie Louise—English A.B. ( <i>Univ. of Michigan</i> ), 1914	* † † Grand Rapids, Michigan
Walton, William Clarence—Education A.B., A.M., Ph.D. ( <i>McKendree Coll.</i> ), 1892, 1894, 1897	SS Lebanon
Ward, Mary Myrtle—English A.B., 1918	SS Glasgow
Watson, Jane Coulson—Spanish A.B., 1915	* † † Champaign
Watson, Perley Melvin—Education A.B., 1914	SS Prairie Creek, Indiana
Weed, Ethel Lois—Education A.B. ( <i>Monmouth Coll.</i> ), 1916	SS Monmouth
Wells, Lansing Sadler—Chemistry A.B. ( <i>Univ. of Montana</i> ), 1915 A.M., 1917	SS * † † Helena, Montana
Whisenand, James Wilbur—Animal Husbandry B.S. ( <i>Univ. of Nebraska</i> ), 1914 M.S., 1916	† Urbana
Whitney, Raymond Earle—Chemistry B.S. ( <i>Univ. of Michigan</i> ), 1917	* Urbana
Whitten, Jennie Alma—Romance Languages A.B., A.M., 1917, 1918	SS De Kalb
Wiersema, Harry Anthony—Civil Engineering B.S., 1913	Portsmouth, Virginia
Wilcox, Roy Harold—Animal Husbandry B.S. ( <i>Minnesota Agricultural Coll.</i> ), 1915	† † Urbana
Williams, Charles Allyn—Romance Languages A.B., A.M. ( <i>Univ. of Iowa</i> ), 1899, 1901 Ph.D. ( <i>Univ. of Heidelberg</i> ), 1909	* † † Urbana
Williams, Lewis Ward—Education Ph.B. ( <i>Hiram Coll.</i> ), 1909 A.M., 1918	SS * † † Champaign
Williamson, Warren—Entomology A.B. ( <i>Knox Coll.</i> ), 1897 A.M., 1911	† † Urbana
Winkelmann, Herbert August—Chemistry B.S. ( <i>Northwestern Univ.</i> ), 1914 M.S., 1915	† † Columbia City, Indiana
Wirth, Fremont Philip—History A.B., A.M., 1917, 1918	† † Waterloo
Woods, Lenna Adair Beryl—Zoology A.B., 1918	* † † Champaign
Woods, Roscoe—Mathematics A.B. ( <i>Univ. of Maine</i> ), 1916	* † † Vanarsdell, Kentucky
Yapp, William Wodin—Genetics B.S., M.S., 1911, 1914	SS Urbana
Yuasa, Hachiro—Entomology B.S. ( <i>Kansas State Agricultural Coll.</i> ), 1915 M.S., 1917	* † † Tokyo, Japan
Yunker, Mrs. Ethel Clofin—Home Economics B.S. ( <i>Michigan Agricultural Coll.</i> ), 1915	‡ Urbana
Yunker, Truman George—Botany B.S. ( <i>Michigan Agricultural Coll.</i> ), 1914 A.M. ( <i>Univ. of Nebraska</i> ), 1915	† † Urbana
Zellhoefer, Edna Lila—English ( <i>Univ. of Illinois</i> )	Le Roy
Zerbee, Leigh Francis <sup>1</sup> —Railway Engineering B.S., 1911	* † Bellefontaine, Ohio
Zerby, Guy Lewis—Education A.B. ( <i>Eureka Coll.</i> ), 1914	* Urbana
Zimmermann, Robert Paul—German A.B., A.M., 1913, 1917	SS Waco, Texas

<sup>1</sup> Candidate for professional degree in engineering.



# **UNDERGRADUATE AND PROFESSIONAL COLLEGES AND SCHOOLS IN URBANA, 1918-19**

(Including the Colleges of Liberal Arts and Sciences, Commerce and Business Administration, Engineering, Agriculture, and Law, the Library School, and the School of Music)

## **ABBREVIATIONS**

### **Curriculums**

Agr	Agriculture	LawP	Law Preparatory
AE	Architectural Engineering	LAS	General Liberal Arts and Sciences
Arch	Architecture	Lib	Library Science
CE	Civil Engineering	MdP	Medical Preparatory
CerE	Ceramic Engineering	ME	Mechanical Engineering
Chem	Chemistry	MinE	Mining Engineering
ChE	Chemical Engineering	MSE	Municipal and Sanitary Engineering
Com	Commerce and Business Administration	Mus	Music
EE	Electrical Engineering	RCE	Railway Civil Engineering
EPh	General Engineering Physics	REE	Railway Electrical Engineering
HEAgr	Home Economics, Agriculture	RME	Railway Mechanical Engineering
HELAS	Home Economics, Liberal Arts and Sciences	SATC	Students' Army Training Corps
Irr	Irregular <sup>1</sup>	SNTC	Students' Army Training Corps, Naval
Jnl	Journalism		Section
Law	Law	Sp	Special
		SS	Summer Session (1918)

Name	Curriculums	Credit Hours <sup>2</sup>	Residence
Abbitt, Macon Armistead	Arch	35 <sup>†</sup>	Hopkinsville, Ky.
Abbott, Edison William	SATC <sup>3</sup> Com	• † †	Chandlerville
Abbott, George Robert	SATC Com	• † †	Charleston
Abbott, Josephine Eleanor	Com	• † †	Chicago
Abbott, Lyle Smith	Agr	• † †	Elgin
Abbott, Lyman Eugene	SATC LAS	• † †	Quincy
Abbott, Merlyn Cecile	SS Lib sp	• † †	Blue Springs, Neb.
Abney, Willard Harold	SATC Com	• † †	Harrisburg
Abraham, John Charles	SATC CE	• † †	Walnut
Abraham, Leonard Gladson	SATC <sup>3</sup> EE	• † †	Watson
Abraham, Lucile Hannah	Com	• † †	Moline
Abraham, Robert	SATC ME	• † †	Rockford
Abraham, Samuel Victor	SNTC ME	• † †	Chicago
Abrahamson, Howard Newton	SATC CE	30 <sup>†</sup>	Chicago
Acer, Charlotte Weld	HELAS	60	Medina, N. Y.
Ackemann, Walter Frederick	SATC LAS	• † †	Elgin
Adams, Eber Clayton	SATC LAS	• † †	Olney
Adams, Elmer Wade	SATC Chem	11	Macomb
Adams, Floyd Elmond	SATC LAS	• † †	Heyworth
Adams, Gentry Dale	SATC LAS	41	Allendale
Adams, Gilbert P	SATC LAS	66	Princeton
Adams, Glen Lloyd	SATC Law	• † †	Moweaqua
Adams, Ira Cecil	SNTC CE	• † †	Danville
Adams, Lyndon Olin	SATC EE	• † †	Kansas
Adams, Stewart	SATC Agr	• † †	Media
Adams, Varian Baltzell	SATC LawP	30	Chicago
Aden, Christine Frances	LAS (SS)	31	Champaign
Affantranger, Darald Matson	SATC Com	• † †	Meadville, Pa.
Agnew, Oliver Lyle	Agr	• † †	Wayne
Agramonte, Roberto	Agr	49	Arequipa, Peru
Ahlenius, Ruth Margaret	LAS	• † †	Chicago
Ahlers, Ophelia	LAS	111	Stoughton
Ahlstrom, Laurence John	SATC Com	• † †	Poplar Grove
Ainsworth, Madalane Zelomia, A.B., 1918	Law	15	Chicago
Aitken, Coleita	Mus	• † †	Urbana
Aitken, William Pryde	SATC Com	• † †	Harvey

• † † Attendance first quarter indicated by the asterisk (\*); second quarter, by the dagger (†); third quarter, by the double dagger (§).

<sup>1</sup>Students holding bachelor's degrees but taking undergraduate work.

<sup>2</sup>Number of credit hours computed as of October 1, 1918, to show the student's class standing during the year.

<sup>3</sup>"Enrolled" in the S.A.T.C., but not inducted.

Aitkin, Frank Harley	SATC	LAS	•	†	‡	Sand Springs, Okla.
Akers, Leslie	SNTC	CE	•	•	•	Mattoon
Albaugh, Anthal Edwin	SATC	LAS	•	†	‡	Berwyn
Albers, John Gerhardt, Jr.	SATC	EE	•	•	•	Pekin
Albershardt, Frederick Conrad	SATC	Com	•	†	‡	Tipton, Ind.
Albershardt, John Henry	SATC	Com	•	†	‡	Tipton, Ind.
Alberstett, Vernon Roy	SNTC	ME	•	•	•	Rockford
Albertsen, Willis Sunderland	SNTC	AE	•	•	•	Delavan
Albertson, Walter Stanley		Com	•	•	•	Genoa
Albrecht, Daniel Arthur, A.B., 1916		Agr irr	162½	•	†	Champaign
Albsmeyer, George Frederick	SATC	ME	•	•	•	Payson
Alcivar, Ernest		MDP	47	•	†	New York City
Alcorn, Charles William	SATC	Com	19	•	†	Hardin, Mo.
Alderson, Edmund Waldo	SATC	Com	66	•	†	Chicago
Aldrich, Baldwin Malcolm		Agr	8	•	†	Chicago
Aldrich, Richard Lewis		LAS	58½	•	†	Farville
Alexander, Archie Johnson		Agr sp	8	•	†	Charleston, W. Va.
Alexander, Grace Elizabeth		LAS	117½	•	†	Chicago
Alexander, Nora Margaret		Mus sp	•	•	•	Belleville
Alford, Frank Lambert	SATC	MDP	•	•	•	Cropsey
Alison, Newton Vincent	SATC	Com	79½	•	†	Champaign
Alleman, James Gordon	SATC	Agr	•	•	•	Thomson
Alleman, James Kellinger	SNTC	EE	•	•	•	Tonica
Alleman, Martin Benjamin	SNTC	Agr	35	•	•	Cedar Point
Allen, Archie Vernon	SATC	Com	18	•	†	Virden
Allen, Cecil Violet		HELAS	98	•	†	Broadlands
Allen, Donald Ray	SATC	Com	•	•	†	Chicago
Allen, Harry Kenneth		Com	66	•	†	Broadlands
Allen, Hester		SS	134	•	•	Delavan
Allen, James Watson	SATC	CE	32	•	•	Searcy, Ark.
Allen, John Rex, Jr.	SATC	LAS	•	†	•	Evanston
Allen, Laurence Holt		Com	75	•	•	Indianapolis, Ind.
Allen, Raymond Charles	SATC	Com	•	•	•	Filmhurst
Allen, Raymond Earl		ME	59	•	†	Chicago
Allen, Theodore Raymond		Agr	68	•	†	Delavan
Allinson, Ora		SS	2	•	•	Urbana
Allinson, Zella		SS	35	•	•	Urbana
Allison, Harley Francis	SATC	Com	27	•	†	Assumption
Allison, Hawley Cowles		LAS	•	•	•	Cherokee, Ia.
Almberg, Iver Theodore	SATC	ME	•	•	•	Chicago
Alphran, Richard Burt	SATC	LAS	•	•	•	St. Louis, Mo.
Alseth, Hilda Josephine		Lib sp	32	•	†	Lake Preston, S. D.
Alter, Franklin Allen	SATC	ME	•	•	•	Rock Island
Althaus, Florence Gertrude		LAS	76½	•	†	Belvidere
Alverson, Lee Herbert	SATC	Com	•	•	•	Bloomington
Alvord, Genevieve, A.B., 1916		SS	130½	•	•	Urbana
Alward, Cutler Kenneth		EE	37	•	•	Moueaqua
Alwood, Fred Ward	SATC	Chem	64	•	†	Clinton
Amacher, Vern David	SATC	MDP	•	•	•	Sirawn
Amsbary, Addie Elizabeth		LAS	28	•	†	Champaign
Amsbary, Frank Clifford, Jr.		ME	•	•	•	Champaign
Anderegg, Mrs. Ethel Coe		SS	3	•	•	Urbana
Anderson, Berdina Margueritte, A.B., 1918		SS	133	•	•	Urbana
Anderson, Donald Sutherland	SATC	Com	•	†	‡	Chicago
Anderson, Dorman Cottier	SATC	Chem	•	•	•	Dixon
Anderson, Elizabeth Carolyn		HEAgr	32	•	†	Elgin
Anderson, Mrs. Elsie Osborne		LAS	102	•	†	Urbana
Anderson, Elwin August	SATC <sup>1</sup>	EE	•	•	•	Elgin
Anderson, Florence Elizabeth, B.S., 1909		SS	136½	•	•	Urbana
Anderson, Floyd Graham	SATC	Agr	•	•	†	Pinckneyville
Anderson, George Harold		Mine	54	•	†	Lake Forest
Anderson, Gustaf Adolph	SATC	CE	•	•	•	Chicago
Anderson, Harold Edward	SATC	Com	•	•	•	Tiskilwa
Anderson, Harriett Maybelle		LAS (SS)	69	•	†	Urbana
Anderson, Henry Waldimar	SATC	Com	•	•	•	Chicago
Anderson, Herbert Spencer	SATC	CE	•	•	•	Charleston
Anderson, John Arthur	SATC	ChE	•	•	•	Chicago
Anderson, Joshua Clayton		Agr sp	131	•	†	Williamsport, Ind.
Anderson, Laurence Bernard	SATC	ChE	26	•	†	East Lynn
Anderson, Norman Duane	SNTC	ME	•	•	•	Chicago
Anderson, Norval Eugene	SATC	CE	76	•	†	Centralia
Anderson, Paul Webster	SATC	ME	•	•	•	Paxton
Anderson, Roy Taylor		Law	•	†	•	Evansville, Ind.
Anderson, William Donald		Com	•	•	•	Monticello
Anderson, William Ellsworth	SATC	CerE	•	•	•	Chicago
Anderson, Wilton Hobart	SATC	Com	•	•	•	Jamestown, N. Y.
Anderson, Winfield Scott	SATC	EE	37	•	†	Anna
Anderson, Zula Grace		HEAgr	•	•	•	Cairo
Ando, Ikutaro		SS	131½	•	•	Kagawaken, Japan
Andresen, Edward Cleveland	SATC	ChE	•	•	•	River Forest
Andrews, Charles Frederick	SNTC	EE	36	•	†	Dixon

<sup>1</sup> "Enrolled" in the S.A.T.C., but not inducted.

Andrews, Elizabeth		HELAS	75	* †	Urbana
Andrews, Howard Wilbert	SATC	Com		* †	Pontiac
Andrews, Rollin David	SNTC	EE		* †	Lawrenceville
Andrews, Ruth Helen		SS	131		Urbana
Aney, Mrs. Gretchen Franken		SS	130		Chandlerville
Angell, Otis Holmes	SATC	MdP		* †	Rushville
Angier, Milton Sanford	SATC	EE		* †	Beardstown
Anson, Ruth		SS	74		Chicago
Anthony, Beatrice Josephine		Mus		* †	Chicago
Antoine, Julius La Roy	SATC	Com		* †	Rochelle
Appel, Robert Everett		Jnl	33	†	Springfield
Appelgren, David Richard	SATC	AE		*	Chicago
Applegate, Jessie Louise		LAS		* †	St. Paul, Ind.
Appling, John William	SATC	Chem	34	* †	St. Joseph
Archer, Mrs. Helen Gabel		LAS	81	* †	Urbana
Archer, Olin Wellington		LAS	83	†	Urbana
Arends, Annis Lillian		SS	138		Champaign
Arford, Edwin Heston	SATC	CE		*	Marshall
Argo, Vernon Alexander	SATC	LAS		*	Clinton
Arms, Ray Walter, E.M., 1912		Mus irr		* †	Urbana
Armstrong, Frederick Carroll	SATC	EE	55	* †	Springfield
Armstrong, Gustave Arnold	SNTC	CE		* †	Chicago
Armstrong, Hazel Irene		Mus	103	†	Champaign
Armstrong, Jack Sylvester	SATC	ME			Bethany
Armstrong, John Harold, A.B., 1917		Law	30	* †	Champaign
Armstrong, Majorie Annon		LAS (SS)	30	* †	Champaign
Armstrong, Wilber Price		MdP	71	* †	Springfield
Arnold, Ambrose Allen		ChE	35	* †	Palmerston, Pa.
Arnold, Charles Vincent		Agr	77	†	La Grange
Arnold, John William	SATC	LAS	31	* †	Little Rock, Ark.
Arnold, Russell Ellsworth	SNTC	CerE		* †	Chicago
Arrasmith, William Strudwick	SATC	Arch	59	* †	Hillsboro, N. C.
Arteaga, George Alexander		CE		* †	Cochabamba, Bolivia, S. A.
Arter, Hays James	SATC	Com	2	* †	Kewanee
Artz, Franz Joseph		MdP		* †	St. Louis, Mo.
Ashby, Wayne Retty	SATC	Com		* †	Savanna
Astell, Guy William	SATC	LAS			Broadlands
Atherton, Howard Rufus	SATC	Com			Elmwood
Atkins, Bessie May		HEAgr	74	†	Evansville, Ind.
Atkinson, Edna Myrtle		LAS	62	* †	Colfax
Atkinson, Graeme Lindley		ChE		* †	Wichita Falls, Tex.
Atkison, Earl Walston	SATC	EE		* †	Pana
Ator, Joseph Reeder		LAS		* †	Waukegan
Atwood, Carl Edward	SATC	LAS	5	* †	Oak Park
Augustine, Roy Clarence	SNTC	Com		* †	Oskaloosa, Ia.
Auner, Joseph Sturgis		Law	10	* †	Des Moines, Ia.
Aungst, Darius William		Com	71	* †	Decatur
Austin, Charles Henry	SATC	LawP		* †	East St. Louis
Austin, Dorothy Cuthbert, A.B., 1916, A.M., 1917		Lib	21	* †	Gilsum, N. H.
Austin, Elvira Purdy		LAS sp		*	Champaign
Austin, James William	SATC	Com		* †	Effingham
Avery, Sidney Raymond	SATC	ChE		*	Chicago
Aynsley, Burdick Calvin	SATC	Com		*	Highland Park
Babb, Howard John	SATC	Com		* †	Champaign
Babb, Margaret Elizabeth		LAS	29	* †	Homer
Babcock, Joy Hope	SATC	CE		*	Aurora
Baber, Carroll Preston, A.B., 1913		Lib		* †	Concordia, Kan.
Baber, Mrs. Nellie Salina		Lib sp		* †	Concordia, Kon.
Bach, Alfred Erwin	SNTC	AE	15	* †	Fairbury
Bach, Howard Tilghman	SATC	Com		*	Martinsville
Bachman, Raymond Lawrence	SATC	Agr		*	Tiskilwa
Bacon, Edward McKinley		LAS	23	†	Chicago
Baechler, Matilda May		SS	130		Grant Park
Baethke, Lillian Henrietta		HELAS	68	* †	Glen Ellyn
Baehle, Dorothy Virginia		LAS (SS)	107	* †	Maplewood, Mo.
Bailey, Albert Brinn	SATC	MinE		* †	Elgin
Bailey, David James	SNTC	Agr		* †	Delavan
Bailey, Mrs. Dora Jane		LAS sp		†	Peoria
Bailey, Frank Arthur	SNTC	Com		*	Elgin
Bailey, Harvey Hamilton	SNTC	ME		*	Moline
Bailey, Robert Gilman	SNTC	Agr		* †	Delavan
Baillie, Lucile Ethel		HEAgr	82	* †	Terre Haute, Ind.
Baily, Evan Branson	SATC	Com		*	Lewisclown
Bainbridge, Harry Orville	SATC	Com		*	Hoopeslon
Baird, Chester Anthony	SATC	LAS	73	* †	Park Ridge
Baird, Esther Moffett		HELAS		* †	Urbana
Baird, Freida		LAS		* †	Jamaica
Baird, George Malcolm	SATC	Com		* †	Evansville, Ind.
Baker, Chester Anderson		ME (SS)	23	†	Weldon
Baker, Clarence Everett		Agr	84	* †	Champaign
Baker, Eldred Benjamin	SNTC	Com	85	* †	Riverside

\* "Enrolled" in the S.A.T.C., but not inducted.

Baker, Franklin Arthur	SATC	Com	• † †	Kankakee
Baker, Harold Griffith		Law	† † †	East St. Louis
Baker, Howard Robert	SATC	Agr	28	Warsaw
Baker, John Babcock		ChE	49	Springfield
Baker, John Owen	SATC	Com	•	Ridge Farm
Baker, Le Roy Clarrion	SATC	Agr	•	Shabbona Grove
Baker, Lloyd Brown	SATC	EE	† † †	Riverside
Baker, Louise		LAS	59	Veedersburg, Ind.
Baker, Robert Everette		Agr	30	Brocton
Baker, Ruth Caroline		SS	3½	Greeley, Colo.
Baker, Samuel Harry, Jr.	SATC	Com	•	Cerro Gordo
Baker, Walter Lakin	SATC	Com	12½	Salem
Baker, Walter Riley		Agr	60	Lafayette, Ind.
Baker, Wilbert James	SATC	Chem	• † †	Priceville
Bakke, Walter Bennie	SATC	Agr	•	Sterling, Colo.
Baldwin, Arthur Ernest		Com	63	Danville
Baldwin, Beulah Helen		LAS	† † †	Centralia
Baldwin, Grace Howard		HELAS	† † †	Urbana
Baldwin, Helen Taylor		LAS	72	DeKalb
Baldwin, Seward Henry		LAS	19	Highland Park
Bales, Miriam Josephine		LAS	•	Dana, Ind.
Ball, Mary Myrtle		LAS	55	Webb City, Mo.
Ball, Wilfrid Randolph		AE	•	Hartford, Conn.
Ballard, Edward Milton		ME (SS)	51	Berwyn
Ballinger, Ione Fredericka		HELAS	98	Chenoa
Banashek, Julius		AE	•	St. Louis, Mo.
Bandy, Lorensen	SNTC	ME	103	Lake City
Bangert, Clarence John	SNTC	Agr	98	Chicago
Bankson, Clyde Russel	SATC	LawP	27	Pulaski
Barackman, Hazel		SS	92	Streator
Baraglia, Victor Anthony		ME	• 8	Chicago
Barber, Albert Carlos		EE	† †	Moline
Barber, Clair Alexander	SNTC	ME	•	Rockford
Barber, William		Com	33	Decatur
Barbian, Albert Mathias	SATC	Com	•	McHenry
Barboro, Alfred John		EE	•	Chicago
Barclay, Donald Reid	SNTC	Com	10	Elgin
Bardwell, John Early	SATC	ChE	•	St. Louis, Mo.
Barker, Annie Eliza		LAS (SS)	64½	Bondville
Barker, Ernest Clyde	SATC	Chem	•	Mazon
Barklage, Oliver Frederick	SNTC	EE	96	St. Charles, Mo.
Barlow, Ralph Frederick	SATC	Com	8	Galva
Barnard, Park Gough	SATC	Agr	•	Panola
Barnard, Paul Moulton	SATC	Agr	•	Panola
Barnard, Randolph Hundley		Com	34	East St. Louis
Barnes, Atala Ann		Mus	16	Urbana
Barnes, Mrs. Bernita Thayer		Mus sp	†	Champaign
Barnes, Clifton Eugene		ChE	101	Mt. Carmel
Barnes, Esther Elizabeth		Agr	35	Urbana
Barnes, Francis Joseph	SATC	EE	•	Chicago
Barnes, Helen May		LAS	69	Olathe, Kan.
Barnes, Irma Margaret		HELAS	105	La Grange
Barnes, Otis Avery, B.S., 1916, M.S., 1918		Mus irr	• † †	Urbana
Barnes, Robert Stubbs	SATC	Com	• † †	Delavan
Barnett, Arthur Ray	SATC	Com	• † †	White Hall
Barnett, Irving Wood	SATC <sup>1</sup>	Com	• † †	Chicago
Barnett, Kenneth Klon	SATC	EE	30	Camargo
Barnett, Mary Lorene		LAS	•	Maltoon
Barnett, Richard Parker	SATC	LAS	24½	La Fontaine, Ind.
Barnhart, William Garold	SATC	EE	•	Atwood
Barousse, Ignacio Carlos		AE	17	Mexico City, Mex..
Barr, Oliver Milton, Jr.	SATC	Arch	•	River Forest
Barrett, Hollis Jordan	SATC	ChE	•	La Grange
Barrett, Isaac Beamer	SATC	CE	•	Elmwood
Barrett, Marguerite Lillian		LAS	•	Oak Park
Barrett, Mary		LAS	29	Joliet
Barrick, John Dean	SATC	LAS	•	Canton
Barry, Jennie Eulalia, A.B., 1918		LAS irr	144	Champaign
Barry, Nelle Lee		Com	• † †	Champaign
Barter, Loy McKinley	SATC	Agr	• † †	Harrisburg
Barthell, Franklin Harold	SATC	Com	•	Peoria
Bartholomew, Harold Lehman	SATC	Com	29	La Fille, La.
Bartholomew, Lloyd Haylor <sup>2</sup>	SATC	Com	•	Dixon
Bartholomew, Maynard Todd	SATC	ME	34	Chicago
Bartle, George Jacob	SATC	Com	•	Pinckneyville
Bartlett, Charles Henry		CE	36	Chicago
Bartlett, William Henry	SATC	Agr	69	Fairbury
Bartling, Arthur William	SNTC	EE	108	Litchfield
Bartling, Carl John	SATC	EE	•	Edinburgh
Bartling, Edwin Phillip	SATC	Com	• † †	Chicago

<sup>1</sup>"Enrolled" in the S.A.T.C., but not inducted.<sup>2</sup>Deceased.

Barton, Arthur Layton		Low	39	• † †	St. Louis, Mo.
Barton, Lester Leslie	SNTC	Com		• † †	Peoria
Baschen, Alford John	SATC	Chem		• † †	Chicago Heights
Bash, Florence Anne		LAS (SS)	40	• † †	Champaign
Bass, Fred	SATC	Agr	67½	• † †	Armstrong
Bass, Irene		Com		• † †	Armstrong
Bass, Leo Ossian	SATC	Agr		• † †	Walnut
Bassett, Vera Vivian		LAS	15	• † †	Champaign
Bate, Langeton Fairchild	SATC	LAS		• † †	Danville, Ky.
Bates, Brockett Rice	SATC	Chem		• † †	Chillicothe
Bates, John Blinn	SNTC	ME		• † †	La Grange
Bates, Nellie Florence		LAS		• † †	Champaign
Bathum, Hans Custer	SATC	Agr		• † †	Chicago
Batson, Benjamin Arthur	SATC	LAS		• † †	Keensburg
Batson, John Thaddeus		ChE	110	• † †	Marshall
Batson, Walter Schafer	SATC	Agr		• † †	Keensburg
Battaille, Irene Louise		LAS		• † †	Champaign
Battaille, Sallie Catherine, A.B., 1917		SS	133	• † †	Champaign
Batterton, Harriett		LAS	66	• † †	Petersburg
Batthey, Leslie James	SATC	EE	72	• † †	Tiskilwa
Battin, Leland Bradford	SATC	Com		• † †	Evansville
Bauer, Benedict Joseph		SS	4½	• † †	St. Louis, Mo.
Bauer, Ezra Edward		CE	106½	• † †	Toledo, O.
Baucr, Karl John	SATC	Chem		• † †	St. Louis, Mo.
Bauersachs, Glenn David	SATC	Agr		• † †	Pinkneyville
Baughman, Clarence Wayne	SATC	Agr		• † †	Ft. Wayne, Ind.
Baujan, Paul Cecil		Com	31½	• † †	Beardstown
Baum, George Humphrey	SNTC	Com	59	• † †	Morris
Baum, Lewis John	SNTC	ME		• † †	Quincy
Baum, Margaret Sutton		LAS	100	• † †	Shelbyville
Baum, Ray Alonzo	SATC	LAS	31	• † †	Quincy
Baumer, Forrest Frederick	SATC	EE		• † †	Centralia
Baumer, Harry William	SATC	EE	108	• † †	Chicago
Baumgartner, Ruth Mildred		Chem		• † †	Moline
Bausor, Leslie William	SATC	ME		• † †	Blue Island
Bautista, Leopoldo Legaspi		ME		• † †	Meykawayan, Bulokan, P. I.
Baxter, Arnold Jack	SATC	ME		• † †	Chicago
Baxter, Ruby May		SS	6½	• † †	Jacksonville
Bay, Edwin	SATC	Agr	34	• † †	Aledo
Bayer, Theodore Franklin	SATC	Com		• † †	Louisville, Ky.
Bayley, Emily Elizabeth		LAS	71	• † †	Urbana
Bayley, Herbert Grant	SATC	Com		• † †	Norris City
Baysinger, Clyde Maurice	SATC	ME		• † †	Aurora
Baysinger, Walter George		Agr	102	• † †	Aurora
Beach, Amy Adaline, A.M., 1918		Mus		• † †	Champaign
Beach, Mrs. Blanche Stipp, B.M., 1915		Mus irr	137	• † †	Champaign
Beach, Charles William	SATC	Com		• † †	Rockford
Beach, Forrest	SATC	LAS		• † †	Joliet
Beach, Harriet Alice		LAS		• † †	Champaign
Beach, Helen Tracy		HELAS		• † †	Wood River
Beach, Julian Burdette	SATC	Agr	32	• † †	Ottawa
Beal, Roy Benjamin	SATC	EE		• † †	Vincennes, Ind.
Beam, Earl William	SATC	ME		• † †	Cuba
Bean, Donald Eckhart	SATC <sup>1</sup>	Jnl	30	• † †	Chicago
Bean, Haldane Wesley		Chem		• † †	Blue Mound
Bean, Roy Newell	SATC	ME		• † †	DeKalb
Beard, Marshall Arthur		Com (SS)	39	• † †	Petersburg
Beard, Ray Albert		Com		• † †	Chicago
Beattie, Dewey Thompson		Agr	26½	• † †	Sparta
Beatty, Elsie		LAS	96	• † †	Paris
Beatty, Francis Merrill		MdP		• † †	La Grange
Beatty, Gilman Monroe	SATC	Agr		• † †	Van Orin
Beatty, William Forest	SATC	Agr		• † †	Paris
Beaudry, Louis Hayne	SATC	ChE	55	• † †	Chicago
Beauman, Lee Roy	SATC	EE	30	• † †	Pittsfield
Beaumont, Thomas Morgan	SATC	LAS	32	• † †	Kankakee
Beaver, Jessie Mae		LAS		• † †	Centralia
Becken, Albert Charles, Jr.	SATC	Com	62	• † †	Chicago
Becker, David Dallas		MinE		• † †	Galesburg, Mich.
Becker, Edmund Frederick	SATC	Com		• † †	Chicago
Becker, Edward		EE		• † †	Chicago
Becker, Frederick William	SNTC	Com	56½	• † †	Geneva
Becker, William Dewey	SATC	EE	12½	• † †	Chicago
Beckman, Frederic William		SS	5½	• † †	Urbana
Beebe, Walter Ewart	SATC <sup>1</sup>	Com	15	• † †	Kankakee
Beebe, Lois Ellen		HELAS	35	• † †	Chicago
Beecher, Lloyd John	SATC	CE		• † †	Urbana
Beechler, Arthur Karl		EE	30	• † †	Washburn
Beedy, Lucille Emily		LAS	63	• † †	Springfield
Beekman, Harry Louis	SATC	Com	33	• † †	Manteno
Beekman, Ramona Alberta		SS	7	• † †	Chicago
Beekmann, Henry Louis	SATC	Com	33	• † †	Litchfield
				• † †	Chicago

<sup>1</sup>"Enrolled" in the S.A.T.C., but not inducted.

Beffa, Theodore Albin		SS	8	St. Louis, Mo.
Beggs, Charles Norman	SATC	CE	70½	Peoria
Begun, Melvin Robert		Com		Hebron
Behl, John Adam	SATC	CE		Assumption
Behrens, Martin Albert		Com	106	Crete
Behmyer, Ruth Valeria		LAS sp		Lebanon
Beien, Frank Michael	SATC	Com	65	Sterling
Bein, Morris Lewis		AE		Chicago
Bell, Cecile Mary		LAS	112	West York
Bell, Donald Sexton	SATC	LAW		Springfield
Bell, Edith May		SS	132	Milton, Ia.
Bell, Grace		LAS		Bondville
Bell, Harold Philip	SATC	Com	68	Chicago
Bell, John Mayer	SATC	ME		Highland Park
Bell, Joseph Sloan	SATC	MdP		Urbana
Bell, Lowell Emma		LAS	69	West York
Bell, Mary Elisabeth		Chem (SS)	112½	Champaign
Bell, Richard Edwin	SATC	ME	28	Chicago
Bell, Robert Daniel		Agr	67	Joliet
Belleff, Vladimir Tanec		Agr	73	Stronmitza, Bulgaria
Belle-Isle, Bertha Olivine		Mus	51	Champaign
Belnap, Roy Miller	SNTC	Com		Washington, D. C.
Beloian, Haig		Agr	101	Chicago
Belt, Floyd Wittier	SNTC	ME		Quincy
Belt, Ford Elven		Agr	28	Prophetstown
Beltz, Louie Edward	SATC	ChE		Creal Springs
Bench, Stella Louise		SS	114½	Galena
Bendtsen, Harry George		Agr		Elgin
Bendtsen, Saloy John	SATC	Agr		Elgin
Benjamin, Lawrence	SATC	Agr		Monmence
Bennett, Albert Francis	SATC	ME		Chicago
Bennett, Austin Harold	SNTC	CE		Chicago
Bennett, Emil Cline		Agr	99	Dudley
Bennett, Emily May		HELAS	42½	Peoria
Bennett, Marie		HELAS (SS)	96½	Champaign
Bennett, Parker William	SNTC	Com	105	Metcalf
Bennett, Wayne Rosley		Com	66	Washington
Bennitt, Fred Dwight	SATC <sup>1</sup>	CE	2	Joliet
Bennoith, Carroll Benjamin	SATC	CE		Elgin
Bennyhoff, Harry Franklin	SATC	Com		Vandalia
Bensinger, Walter Joseph	SATC	Com		East St. Louis
Benson, Forrest Carl	SATC	CE		Chicago
Benson, Harold Gust	SATC	Com	26	Mt. Carroll
Benson, Lois Pope		SS	89	Herrin
Benson, Merrill Philip	SATC	CE	35	Galva
Benson, Mitchell Joseph		LAS		Indianapolis, Ind.
Benson, Robert Gilson	SATC	MdP	7	Coreville
Bensyl, Nora Myrtle		SS	2½	Ogden
Benton, Curtis	SATC	LAS	64	Macomb
Benton, Rosybell		MdP sp		Macomb
Benway, Frank Anton	SATC	AE	35	Strawn
Berendes, Edwin Christopher	SATC	Arch		Evansville, Ind.
Berens, Edward Peter	SATC	ME		Chicago
Berg, Herbert Andrew	SATC	Agr		Riverside
Berg, LeRoy Taatjes	SATC	LAS	22	Champaign
Berger, Henry George	SATC	ChE	33	Chicago
Berger, Paul Jens	SATC	AE		Davenport, Ia.
Bergren, Raymond Dewey	SATC	Com	12	Chicago
Bergsten, Soender Herald	SATC	LAS		DeKalb
Bergstrand, Arthur William	SATC	Com		Hinckley
Berkowitz, Abraham Isaac	SATC	CE		Mattoon
Berline, Henry Lee		Agr	87	White Hall
Berman, David	SATC	Com		DeWitt, Ia.
Bernard, Clifford Shaffer		Arch	125½	Wellman, Ia.
Bernbaum, Barnet Russell		EPh		Cincinnati, O.
Berner, Laura Mae		SS Lib sp		Savanna
Berners, Edgar Hubert	SNTC	AE	36	Port Washington, Wis.
Bernhardt, Wilbert	SATC	CE	72	South Bend, Ind.
Bernheisel, Luther Melancthon, Jr.		CE	17	Evanston
Bernreuter, Herbert Alphonso	SATC <sup>1</sup>	EE		Mt. Olive
Bernreuter, Ruth Ada		LAS	72	Nashville
Bernstein, David	SATC	Com		Spring Valley
Bernstein, Herbert Saul	SATC	Com		Chicago
Berry, Emery Franklin	SATC	EE		Sales, N. D.
Berry, Lawrence Joseph	SATC	Agr	34	El Paso
Berry, Richard Joseph		AE		El Paso
Beshers, Hugh Monohan	SATC	ME		El Paso
Best, Julia Frances		Jnl	31	Milford
Best, Richard Bland	SNTC	Agr		Lerna
Bethel, Joseph Tilman	SATC	EE		Staunton
Bettinghaus, George Walter	SATC	Com		Springfield
Betts, Wyllis Fay	SNTC	ME		Rockford

<sup>1</sup> "Enrolled" in the S.A.T.C., but not inducted.

Beyer, Ray William	SATC	LAS	*	Princeton
Beyer, Walter	SATC	ME	*	Chicago
Bidwell, Preston Hyde		MdP	*	Attica, Ind.
Biedermann, Edward Adolph	SATC	Com	65	† † Oak Park
Bielfeldt, Paul William	SATC	ME	† †	Thornton
Biespiel, Samuel Lenard	SATC	Com	† †	Chicago
Biester, Charlotte Elizabeth		IELAS	† †	Garden Prairie
Bilderback, Gordon Butler		Com	63	† † Champaign
Billerbeck, Ernest Raymond Carlos	SATC	Arch	† †	Freeport
Bils, Fred Stephen		Com	† †	Waukegan
Bing, Bertha Helen, A.B., 1918		Law	† †	Urbana
Binyon, Mrs. Josephine Armstrong		Mus (SS) sp	3	† † Urbana
von Binzer, Werner Frederic	SATC	Com	35	† † Davenport, Ia.
Birdsall, Charles Griffin		ChE	96	† † Clinton Corners, N. Y.
Birdsell, Edwin Kenneth	SATC	ME	† †	Chicago
Birdzell, William Isaac		SS	85	† † Ellis
Birks, Helen Eola		HEAgr	10	† † Cornland
Birks, John Milton		Agr	100	† † Cornland
Bischof, Rudolph Joseph		Com		† † Pinckneyville
Bishop, Ellen Elizabeth		LAS sp		† † Grand Rapids, Mich.
Bishop, Sam Dewey	SATC	Agr	27	† † Perry, Mo.
Bitzer, Le Roy		ME		† † Collinsville
Bjorklund, Emil Jonas	SATC	Com		† † Moline
Black, Ruth Frances		Law		† † Paris
Blackard, Clara		LAS		† † Harrisburg
Blackard, Mary		LAS	31	† † Harrisburg
Blackburn, Bertha Florence, A.B., 1911		Lib sp	3	† † Champaign
Blackledge, Wallace Clayton	SATC	LAS		† † Belvidere
Blackman, Alfred Watson	SATC	Agr	25½	† † Bloomington
Blackmon, Harry Charles	SATC	Com		† † Washburn
Blackstone, Henry		EE	66	† † Chicago
Blagg, Herman	SATC	EE		† † Carmi
Blair, Daniel Augustus	SATC	LawP	100	† † Murphysboro
Blair, George Washington	SATC	Agr		† † White Hall
Blair, Josephine Van Horn		Agr	30	† † Urbana
Blair, Julius Lauren	SATC	ME		† † Normal
Blair, McKendree McElfresh	SATC	LAS		† † Jacksonville
Blair, Raymond Ashworth	SATC	EE		† † Cutler
Blair, Thomas Edison		RCE (SS)	60	† † Sao Paulo, Brazil
Blakley, Loy John	SATC	Agr		† † Kilborne
Blakslee, Elizabeth		IELAS (SS)	60	† † DuQuoin
Blakeslee, Mariam		SS	7	† † Oakland, Cal.
Blakeslee, Roberts Sutton	SATC	Com		† † Canton
Blanchard, James E	SATC	EE		† † Peoria
Blanton, Charles Lee, Jr.	SATC	LAS		† † Sikeston, Mo.
Blasey, Frank Earl	SATC	ME		† † Tiskilwa
Blatt, John Frederick	SATC	ChE		† † Kankakee
Blevins, Lucettie		SS	14½	† † Atwater
Blevins, Olive May		SS	7	† † Atwater
Blinn, Edwin Ralston		Com	12	† † Butte, Mont.
Bliss, James Harrison, Jr.	SATC	LawP	26	† † Little Rock, Ark.
Bliss, Stanley Waters		Arch	70	† † Little Rock, Ark.
Block, Henry Von Phul	SATC <sup>1</sup>	Arch		† † Louisiana, Mo.
Block, Louis		LAS	5	† † Joliet
Blodgett, Harold Le Roy	SATC	LawP		† † Fulton
Blomberg, Carl Xerxes	SATC	CE		† † Rockford
Bloodgood, Owen	SATC	Com	66	† † Aurora
Bloom, Hayner Henry	SATC	Com		† † Indianapolis, Ind.
Bloom, Ralph Merrill	SATC	Com	50	† † Chicago
Blount, Walter	SATC	MdP	34	† † Oak Park
Blue, Walter Anthony	SATC	CE		† † Webster City, Ia.
Blumenfeld, Selden Abraham	SATC	LawP		† † Madison
Blunt, Edith Susan		LAS		† † Urbana
Bluthardt, Oscar David	SATC	ChE		† † Chicago
Bly, Anna Harriet		Com	33	† † Morris
Bobo, Fred Douglas	SATC	LAS		† † St. Louis, Mo.
Bobby, Walter Weber		Agr sp		† † Chapin
Boehm, George Llewellyn	SATC	Com		† † Ashland, Wis.
Boehme, Carl Frederick	SATC	Agr		† † Lockport
Boellner, Virginia Mildred		Com	66	† † St. Louis, Mo.
Boemer, Lilburn Casper	SATC	LAS		† † St. Louis, Mo.
Boeschstein, Charles Krome	SATC	Jnl	57½	† † Edwardsville
Boeschstein, Harold		Com	95	† † Edwardsville
Boesen, Peter John		EE (SS)	116	† † Cabery
Bogue, Beulah Catherine		IELAS		† † Bement
Bohn, Fred		CE sp	16	† † Algoni, Ia.
Bohnsted, Leotti George	SATC	ME		† † Silver Lake, Ind.
Bohon, Rane Samuel	SATC	Com		† † Decatur
Bohrer, Joseph Pifer		Agr	22	† † Bloomington
Boice, Milford Coats	SATC	EE (SS)	72	† † Champaign
Boldon, Cora Esther		IELAS		† † Wind Fall, Ind.
Boley, Bessie		SS	15½	† † Cathoon

<sup>1</sup> "Enrolled" in the S.A.T.C., but not inducted.

Bollenbach, Elmer Rising	SATC	EE	• † †	Wheeling
Boller, Irene Mae		Agr	• † †	Chicago
Bolling, Harry Malcom	SATC	ME	• † †	Rockford
Bollinger, Francis Lewis	SATC	EPh	* † †	Chicago
Boelman, Aubrey	SNTC	Com	•	Edwardsville
Bollman, Paul Norman	SATC	Com	•	Springfield
Bolt, William Weeks	SATC		• †	Springfield
Boner, Donald Gustine		Com	•	El Paso
Boner, Enid Eva		Com	• †	Urbana
Boner, Lyle Kingdon	SATC	Com	• † †	El Paso
Bonnen, Charles Henry		Com	•	Gibson City
Bonnen, Clarence Alfred		Agr	• † †	Gibson City
Boo, Gerald Don	SATC	EE	• † †	Lewistown
Boodel, Cletus James	SATC	Com	• † †	Harvard
Booker, Courtland Spencer		ME	• † †	Washington, D. C.
Boone, Chester Arthur	SATC	Com	• † †	Tolono
Booth, Ammasor Rennick	SATC	Agr	• †	Springfield
Booth, Joseph Albert	SATC	LAS	•	Springfield
Borah, Loco Wilson		Com	• † †	Fairchild
Borders, Boice Bradshaw	SATC	Com	•	Rossville
Borelli, Aurelio		EE	• † †	Sao Paulo, Brazil
Borg, John Ebert	SATC	Agr	•	Milford
Borgelt, Herbert	SATC	Agr	•	Havana
Borgmeier, Casper Oscar	SNTC	Com	• † †	Bicknell, Ind.
Boring, Benjamin Franklin	SNTC	ME	•	Robinson
Born, Ferdinand	SATC	Com	•	Indianapolis, Ind.
Borr, Abe Nathan	SATC	CE	•	Chicago
Borroff, Edwin Raymond		LAS	• †	Chicago
Boston, Elmer Sawyer	SATC	Agr	•	Rollo
Bosworth, Howard Ralph	SATC	EE	• † †	Marseilles
Botts, Mrs. Jessamine Knapheide		LAS	•	Quincy
Boucher, Nellie Genevieve		LAS	• † †	Carbondale
Boutwell, William Dow		Jnl	• † †	Waukegan
Bowditch, Fred Tryon	SNTC	EE	• † †	Urbana
Bowditch, Harvey Russell	SATC	Agr	• † †	Urbana
Bowen, Abner Hiram		ME	• † †	Delphi, Ind.
Bowen, Charles Edward	SATC	Com	• † †	Delphi, Ind.
Bower, Harriett Jean		SS	•	Bement
Bowersock, William Michael		EE	• † †	Maroa
Bowey, Donald Fyfe	SATC <sup>1</sup>	ChE	• † †	Chicago
Bowlar, Felix Fielding, A.B., 1906		SS	•	Cairo
Bowler, Harold James	SATC	LAS	•	Chicago
Bowles, Frank Edward		LAS	• †	St. Louis, Mo.
Bowlus, Hazel W. A.B., 1916		SS	• † †	Champaign
Bowman, Floyd Walton	SATC	Agr	• †	Owaneco
Bowman, John Stanley	SATC	ME	• † †	Rockford
Bowman, Merton Wilson	SNTC	CE	• † †	Blairstown, N. J.
Bowyer, Lewis Herbert		SS	• † †	Bement
Boyarskii, Maurice	SATC	Jnl	• † †	St. Louis, Mo.
Boyd, Herschel Francis	SATC	ME	•	El Paso
Boyd, Leland Richard	SATC	CerE	• †	Kankakee
Boyer, Durley Wilbur	SATC	Com	•	Loda
Boyer, Raymond Frederick	SATC	CerE	•	Vandalia
Boyer, Ruth Claudine		LAS	• †	Chicago
Boyle, Louis Albert	SATC	Agr	• † †	Hennepin
Boyle, Marie Agatha		SS	•	Stonington
Boyle, Ruth Frances		SS	• † †	Stonington
Boyle, Violet Beatrice		HEAgr	• † †	Hennepin
Boyles, Berlyn Louis	SATC	Chem	•	Paris
Boynton, Harold De Wolf		LAS	• †	Aurora
Bozarth, Inez Valentia		SS	• † †	Bay City, Ore.
Bracewell, Vera Faye		HELAS	•	Lone Elm, Kan.
Bradburn, Hubert Benjman	SATC <sup>1</sup>	MdP	• † †	Lincoln
Bradbury, Marie Margaret		HELAS (SS)	• † †	Urbana
Bradbury, Norman Landon	SATC	Com	• † †	Riverside
Braden, Ruth Elizabeth		Com	• † †	Walseka
Bradley, Mrs. Alma Kennedy		Mus sp	• † †	Toronto, Ontario, Canada
Bradley, Cora Imelda		LAS	• †	Ottawa
Bradley, Lucile		Law	•	Urbana
Bradley Neva Elizabeth		LAS	• † †	Princeton
Bradley, Rachael		LAS	• † †	Loda
Bradley, Richard Capelle	SNTC	ME	•	St. Louis, Mo.
Bradshaw, George Howard	SATC	AE	•	Ottawa
Bradshaw, James Winborn	SATC	CE	•	Kansas City, Kan.
Bradt, Andrew Glidden	SATC	LAS	• † †	DeKalb
Bradt, Mariann		LAS	• † †	DeKalb
Brady, Charles Augustus	SATC	LAS	•	Anna
Brady, Geneva Wood		Mus sp	• † †	Champaign
Brady, May Frances		LAS	• † †	Champaign
Brain, Majorie Irene		HELAS	• † †	Chicago
Braman, William Henry		CE	• † †	South Bend, Ind.
Bramble, Zenda June		LAS	• † †	Champaign

<sup>1</sup>"Enrolled" in the S.A.T.C., but not inducted.



Brame, Millard Everett		Agr	69	†	Le Roy
Bramer, Max L		EE	25	•	Granite City
Branch, Lester Monroe	SATC	CE		•	Evanston
Brand, Dorothy Mildred		LAS	64	†	Normal
Brand, Edward August		EE	35½	†	Springfield
Brandhorst, Clifford Dewey	SATC	LAS		•	Nashville
Branham, Ivan Bundy	SATC	Chem	34	•	Urbana
Brant, Golda Mary		LAS	31	†	Hamilton
Brant, John Bennett		SS	9	†	Bushnell
Branyan, Ervel Alexander	SATC	EE		•	Assumption
Brasch, Winfield Franklin	SATC	ME		•	Chicago
Bratten, Arno		SS	34½	•	Creul Springs
Braucher, Margaret Doten		LAS	31	†	Emporia, Kan.
Braucher, Ralph Lorer		Com		•	Bement
Brauer, Ben Albert		Com		•	Altamont
Brauer, Henry Ernest	SATC	ChE	81	†	Red Bud
Braun, George, Jr.		Arch (SS)	119½	†	Chicago
Brauns, Esther Dorothy		LAS		•	West Chicago
Brauns, Helen Marie		HELAS	100	•	West Chicago
Brazleton, Florence Carter		LAS	4	†	Greensburg, Ind.
Breathwit, Rachel Augusta		LAS	71	†	Houston, Tex.
Breckenridge, Mrs. Marie Renfrew		HEAgr	22	†	Urbana
Brede, Erwin Charles		Arch	68	•	Collinsville
Brede, Lothar Homer		Chem	107	†	Collinsville
Bredeweg, Edythe Lorene		LAS	94	•	Quincy
Bredfeldt, Charles	SATC	CE	72	•	Chicago
Bregman, Walter Isadore	SATC	Com	62	†	Chicago
Bremer, Jessie Currier		CE		†	Hillsboro
Brennan, Wintress, A.B., 1914, B.L.S., 1917		LAS irr	199	•	Ogden
Brensky, Abraham Albert	SATC	CE	103½	•	Chicago
Bressee, John James	SATC	CE		•	Mattoon
Breskin, Louis		Agr sp		†	Chicago
Brew, George Joseph		Com	33	†	Chicago
Brewer, Eva Mae		SS Lib sp		•	Mt. Sterling
Brewer, Fred Samuel	SATC	Com		•	Atwood
Brewington, Robert Julian		Com		†	Indianapolis, Ind.
Brewster, William Goddard	SATC	Com	50	•	Chicago
Breyfogle, Ruth Edith		LAS	102	•	Crown Point, Ind.
Brian, Lucia Beatrice		LAS	34	†	St. Francisville
Brickley, Ciella Mae		LAS	62	•	Berne, Ind.
Brickwell, George William	SATC	MdP		•	Danville
Bride, James Millhollin	SATC	ME		•	Cairo
Bridgman, James Forrest	SATC	LAS		•	Gales
Briem, Rose Doris		LAS		†	Omaha, Neb.
Bright, Orleigh Logan	SATC	Agr		•	Paris
Brightwell, James Erskin	SATC	Com		•	Aurora
Brill, Ward Cleveland	SATC	Chem		•	La Harpe
Brinckerhoff, John Julius	SATC	MdP		•	Minooka
Brinckerhoff, Martin Oliver	SATC	ME		•	Mokena
Brink, Clarence Lester		ChE		•	LaSalle
Brinkerhoff, John William	SATC	Com		•	Springfield
Brissenden, Oscar Dewey	SATC	LAS		•	Flora
Britt, Marie Anne		HELAS	62	†	Freeport
Britt, Raymond Lewis		LAS	105	†	Freeport
Brittain, Ashleigh Woodruff	SATC	Agr		•	Chicago
Brittain, Henry Wheeler		LawP		•	Quincy
Britton, Charles Henry		SS	20%	•	Cantrall
Britton, Erma Estal		MdP	10	†	Gibson City
Britton, Waldo Vincent		Com		†	Ashley
Broadhurst, Elizabeth Maury		HELAS (SS)	60	•	Champaign
Broadhurst, Tabitha Jayne		Mus sp	2	†	Champaign
Broadwell, Lelia Esther		HELAS	28	†	Fairbury
Brock, Glen Porter		Com	8	†	Palestine
Brock, Thomas Hugh		Agr	103	†	Waynesburg, Pa.
Brockmeier, Martha Matilda		LAS	99	†	Freeport
Brockmiller, Harry	SATC	AE		•	Carlinville
Broeker, Clarence Ehnie		Chem	104	†	Beardstown
Brokaw, Chester Russell	SATC	EE		•	Princeton
Brokaw, Mary Isabella, A.B., 1912		Lib		†	Lawrence, Mich.
Brokaw, Mary Ruth		SS	4	•	Urbana
Brolin, Marion Theodora		HELAS	94	•	Rockford
Brom, Alvin Carl		Agr	107	•	Evansville, Ind.
Bromwell, Matthew Scott		Agr sp		•	Washington, D. C.
Bronson, Ethel Lucille		Com	12	†	Chicago
Brook, Clarence Louis	SATC	EE	67	•	Highland
Brooks, James Knox		Agr	2	†	Forney, Tex.
Brooks, James Read	SATC	Com		•	Chicago
Brooks, Joseph Chaney		Agr	102	†	Forreston
Broom, Cohea Allen	SATC	Com	32	•	Efingham
Broom, Mybert Eustace	SATC	MdP (SS)	36	•	Efingham
Broom, William Lewis	SATC	Com		•	Efingham
Broshar, Helen		LAS	67	•	Champaign
Brosman, Paul Williams	SATC	LawP		•	Albion
Brothers, Lyle Howard	SATC	CE		•	Chicago

Brough, Glen Amos		ChE		†	Plymouth
Brown, Cecil Roy	SATC	LAS		•	Winchester
Brown, Charles Dewey	SATC	Agr		•	Oblong
Brown, Chester Arthur	SATC <sup>1</sup>	EE		• †	Chicago
Brown, David Elvin		Agr		•	Caledonia
Brown, Donald	SATC	ME		•	Havana
Brown, Edna Elizabeth		LAS		• †	Honer
Brown, Edwin Burt, Jr.	SATC	LAS		•	Wilmette
Brown, Elmore Clifton	SNTC	Agr		•	Elmwood
Brown, Era David		Com	30	† †	Urbana
Brown, George Bently	SNTC	ME		• †	Wyoming
Brown, Geraldine A		HELAS	88	•	Kansas City, Mo.
Brown, Gladys Elsie		LAS	15	•	Peoria
Brown, Grace Voris		LAS	97	† †	Findlay
Brown, Lorene		LAS	65	† †	Genoa
Brown, Lucian Henry	SNTC	Agr		•	Greensburg, Ind.
Brown, Lyle Chase	SATC	Com		† †	DuQuoin
Brown, Max Jacob	SATC	ChE		† †	Bremen, Ind.
Brown, Meyer	SATC	ChE		•	Chicago
Brown, Mrs. Nellie Wiman		HELAS (SS)	8½	† †	Yale
Brown, Ralph Hadden	SATC	Agr	64	†	Culler
Brown, Robert James	SATC	Com	9	•	Churubusco, Ind.
Brown, Ruth Adams		LAS		† †	Quincy
Brown, Victor Israel		LAS (SS)	104½	† †	Oblong
Brown, Wallace Winthrop		LawP	45	† †	Joliet
Brown, Winifred Urline		MdP	15	† †	Carmi
Bruce, Warren Cobine		ChE		† †	St. Louis, Mo.
Bruce, William Ronald	SNTC	ME		•	Carthage
Bruhn, Elmer Franklin	SATC	AE		† †	Tuscola
Brummer, Erwin Max	SATC	Com		•	Blue Island
Brun, Louise Dorothy		SS	6	•	Blue Island
Brunn, Joseph Frank	SATC	ChE		•	Chicago
Brunnemeyer, Henry Raquet		Agr	67	† †	Aurora
Bruns, Harold Henry		EE		•	St. Charles, Mo.
Brunton, John Harrison		EE		•	Churubusco, Ind.
Bruske, Edward Henry, Jr.		Com		•	Chicago
Brya, Augustus Marcus		Agr		† †	Champaign
Brya, Edward Gunning		Agr	101½	† †	Tolono
Brya, Francis Erle		Com	85	† †	Tolono
Bryant, Anna May		Com		•	Chicago
Bryant, Robert Beach	SATC	Agr	28	† †	Princeton
Bublitz, Arthur John	SATC	ChE		•	Chicago
Buchan, Evelyn		LAS sp		†	Chicago, Ia.
Buchan, Leslie James	SATC <sup>1</sup>	LAS		†	Clarion, Ia.
Buchanan, Forrest Struble	SNTC	ME		•	Laurenceville
Buchanan, Gordon, Jr.		MinE		†	Highland Park
Buchanan, Lloyd Jory	SATC	ME		•	Whiting, Ind.
Buchanan, Martha Pearl		HEAgr		† †	Laurenceville
Buchheit, George Clifford	SATC	CE	99½	† †	Beardstown
Buck, Arthur Glasgow	SATC	CE		•	Normal
Buck, Glenn Leonard	SNTC	Agr		† †	Moline
Buck, Harold Philbrick		Arch	66	† †	Chicago
Buck, Vernon	SATC	LAS		•	Lacon
Buckingham, Harold Finch	SATC	CE		•	Washburn
Buckler, Helen Irene		LAS	32	† †	Champaign
Buckner, Joseph Bruce		SS	134	† †	Melcal
Buckley, Lillie Mary		LAS		† †	Champaign
Buehler, Herman Lenard	SNTC	Jnl	27	† †	Chicago
Buehling, Irwin Laurance	SATC	Arch		† †	Chicago
Buell, Clifford Paul	SNTC	Agr		•	Greensburg, Ind.
Buelter, Lyle William	SATC	CE		•	Batavia
Buerkle, Fred Charles	SNTC	EE		•	DuQuoin
Bulley, Allan Edgar		EE		†	Kenilworth
Bullis, Grant Leon	SATC	Agr		•	Rollo
Bullock, Boyd Willard		LAS	8	†	Evansville, Ind.
Bullock, Geraldine Salisburg		HELAS	121	•	Tonica
Burch, Minnie Ella		SS	7	•	Greenville
Bundy, Royce Teller	SATC	Com		•	Mazon
Bunn, William Benton		Agr	94	†	Olney
Buntin, Catherine		HELAS	26	† †	Chicago
Burch, Harold William	SATC	Com		•	Morrisonville
Burch, Norwood	SATC	LAS		•	Evanston
Burdick, John Russell	SATC	CE		•	Maywood
Burdick, Roy Albert		ME		•	Aurora
Burgee, James Brown	SATC	Com	31	† †	St. Louis, Mo.
Burgess, Lorraine Plessa		SS	52	•	Galva
Burke, Eugenia Gertrude		LAS	70	† †	Carlinville
Burke, John Arthur		ME	74	† †	Champaign
Burkhart, Oscar Edwin	SATC <sup>1</sup>	ChE		† †	Edgerton, O.
Burks, Roger Thompson	SATC	Com		•	Decatur
Burleson, Howard Chauncey		Com	69	†	Champaign
Burley, Paul Brown	SNTC	EE	70½	† †	La Grange

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Burnap, Harriett Yerkes		LAS	94½	* † †	Alton
Burnell, William Reese	SATC	EE	34	* † †	Spring Valley
Burnett, Woodford Dulaney	SATC	ME	28	* † †	Marshall
Burnham, Josephine Mae		LAS		* † †	Aurora
Burnham, Robert Davison, Jr.		SS	14½	* † †	Champaign
Burns, Alvin Given	SATC	LAS		*	Tulsa, Okla.
Burns, Ralph Francis		Com	63½	* † †	St. Louis, Mo.
Burr, Edwin Freeman	SATC	Com		* † †	Rockford
Burris, Ethel May		LAS		* † †	Danville
Burritt, George Evans	SATC	EE		* † †	Rockford
Burt, Josephine		Agr	31	* † †	Urbana
Burton, Edward Francis	SATC	ME		*	Rock Island
Burton, Malcolm Vreeland		Agr	52	* † †	Aurora
Burton, Ruth Beatrice		LAS	23	* † †	Urbana
Burwash, Grace Sarah		HELAS	113	* † †	Champaign
Burwash, Lucie Pauline		HELAS	82	* † †	Champaign
Burwash, Maynard Boswell	SATC	Agr		* † †	Champaign
Burwash, Ruth Margaret		HELAS (SS)	109	* † †	Champaign
Busby, Roy Leonidas	SATC	LAS		*	Ridge Farm
Buschman, Mary Louise Elizabeth		SS	8		Edwardsville
Bussey, Margaret Jeannette		Chem	67	* † †	Urbana
Bush, Alexander T		Chem	109½	* † †	Glencoe
Bush, Ralph Royal	SATC	ME		* † †	Champaign
Bushnell, Florence Genevieve		LAS	51	* † †	Chicago
Busse, Edward Clarence	SATC	CE	62	*	Twin Lake, Mich.
Bussey, Walter Burns	SATC	CE		*	Joliet
Butler, James Allen	SATC	ME		* † †	Valparaiso, Ind.
Butler, James Arthur	SATC	MdP		*	Chicago
Butler, John Bruce	SATC	AE	36	* † †	Cairo
Butler, Mary		HEAgr	87½	* † †	Cairo
Butler, Maude Marie		HELAS	66	* † †	Chatham
Butler, Max Clear	SATC	LAS		*	Downers Grove
Butt, Vinvela		Com		* † †	Little Rock, Ark.
Butterbaugh, Homer Wolf	SATC	ME		* † †	Lamar
Butterfield, Helene Gertrude		Jnl		* † †	Wilmingon
Butts, Robert Paddock	SATC	LawP		* † †	Springfield
Butzer, Goldia Grace		LAS	111	* † †	Hillsdale
Butzer, John Alfred Martin	SATC	ChE		*	Hillsdale
Byerley, Jacob Roy		LAS		†	St. Joseph
Byers, Bessie Bradshaw		LAS (SS)	125	* † †	Charleston
Byrne, Susanne Marie		LAS	31	* † †	Chicago
Bysack, Bhupenda Nath		Com	43	* † †	Calcutta, India
Cabalek, Anna Elizabeth		Com		* † †	Villa Grove
Cade, Harriet Clark		LAS (SS)	94	* † †	Veederburg, Ind.
Cade, Helen Jane		HELAS		* † †	Pennfield
Cadmore, John Rannells	SATC	LAS		* † †	Waukegan
Cadwell, Harold Edgar	SATC	Com	19	* † †	Rockford
Cagann, Oscar William	SATC	Com	61	* † †	Champaign
Cahill, Nellie Walsh		SS	13		Waterloo
Cailey, Opal Winifred		Mus sp		* †	Tolono
Calderwood, Sarah Ruth		HELAS	102	* † †	Grinnell, Ia.
Caldwell, George Harold		Agr	43	*	Chicago
Caldwell, James Judson	SATC	LAS		*	Champaign
Caldwell, Neal Willard		LAS	49	*	Champaign
Caldwell, Robert Burr	SATC	EE		*	Decatur
Caldwell, Ruth Margharctta		Com		* † †	Sheldon
Calisch, Charles L	SATC	Com		*	Chicago
Call, Hubert Bryan	SATC	Com		*	Springfield
Callard, Edwin George	SATC	AE	14	*	Chicago
Callner, Saul Solkind	SATC	ChE	75	* † †	Chicago
Calta, Edward John	SATC	ChE		* † †	Chicago
Cameron, Alan Bruce		ME		* † †	Chicago
Cameron, William Roy	SATC	ME	57	* † †	Galesburg
Campbell, Carlos Wilbur	SATC	ME	13	* † †	Virginia
Campbell, Donald Howard	SATC	Com		* † †	Chicago
Campbell, Everett Wayne	SATC	MdP		* † †	Washington, D. C.
Campbell, Florence May		LAS		* † †	Chicago
Campbell, Herbert Edwin	SATC	RME	22	* † †	Chicago
Campbell, Isabel Catherine		SS	74		Hanover
Canaday, Franklin Augustus	SATC	Agr		* † †	Homer
Canary, Alexander Joseph	SATC	ChE	12	* † †	Chicago
Candlish, Thomas Colin	SATC	Agr		* † †	Waterman
Canfield, Jesse James		Chem		* † †	Yale, Okla.
Cannon, Joseph William, Jr.	SATC	LawP	34	* † †	Chicago
Cannon, Opal		LAS (SS)	67	* † †	Danville
Cannon, Ward Curtis	SATC	Agr		* † †	Buckley
Cantrell, Robert McFall		Com	25½		Benton
Cantrell, Tilman Bethel		LAS	30		Benton
Castle, Richard Lloyd		Com	61		Urbana
Canty, Francis Coulson	SATC	LAS	20	* †	Chicago
Caraway, James Ezra		SS	8		Peniel, Tex.
Carello, George Frank	SATC	EE		*	Chicago
Carey, James Milton	SATC	EE		*	Chicago
Carey, Thomas Floyd	SATC	LawP		* † †	Beardstown

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Carius, Fay Louisa		LAS	•	†	†	Moline
Carlin, Joseph Martin	SATC	CE	•	†	†	Garrett, Ind.
Carlsen, Ralph Armond		Com	68	•	†	Chicago
Carlson, Alice Mae		LAS	96½	•	†	San Diego, Cal.
Carlson, Carl Philip Benard	SATC	CE	•	•	•	Batavia
Carlson, Carl Ruben	SATC	ME	•	•	•	Porter, Ind.
Carlson, Conrad Gillis	SATC	ME	•	†	†	Rockford
Carlson, Emanuel Theodore	SATC	Com	•	•	•	Indiana Harbor, Ind.
Carlson, Harry Donald	SATC	CE	35	•	†	Montgomery, Ala.
Carlson, Helen Marie		Jnl	102½	•	†	Chicago
Carlson, Leroy Vernon	SATC	ME	•	•	•	Rockford
Carlson, Melvin Carl	SATC	ME	•	•	•	Chicago
Carlson, Paul Leonard	SATC	CE	32	•	†	Lake Forest
Carlson, Reuben Godfrey		Agr	41	•	†	Chicago
Carlson, Richard John		Arch	107	•	†	Chicago
Carlson, Solomon Wilhelm	SATC	CE	•	•	•	Batavia
Carlson, Winifred Jean		LAS	64	•	†	Chicago
Carman, Omar Sinn	SATC	Agr	30	•	†	Urbana
Carmichael, Alma		LAS	36	•	†	Urbana
Carmichael, Arthur Kettlewell	SATC	Agr	•	•	•	Rockford
Carnahan, Charles Evert	SATC	EE	34	•	†	Lead, S. D.
Carney, Charles Roslyn	SATC	LAS	•	•	•	Evansville
Carney, Joel Timothy Patrick		SS	5	•	•	Atlanta, Ga.
Caron, Justin August George	SATC	AE	•	•	•	Oak Park
Caron, Robert Paul		MdP	46½	•	†	Kankakee
Carrier, Earle Wesley, B.S., 1918		CE irr	143	•	†	Champaign
Carroll, Albert	SATC	Com	7	•	†	Shawneetown
Carroll, Catherine		LAS	35	•	•	Shawneetown
Carroll, Charles, III		Com	99	•	†	Shawneetown
Carroll, Ella Beatrice		HELAS (SS)	64½	•	†	Greenville
Carroll, La Fayette Van	SATC	Com	10½	•	†	Peoria
Carroll, Samuel White		LAS	•	•	•	Kewanee
Carson, Charles Elert		LAS	26	•	†	Mt. Carmel
Carson, Gerald Hewes	SATC	LAS	36	•	†	Carrollton
Carson, Julia Elizabeth		SS	8	•	•	Makomet
Carson, Raymond Clark	SATC	LawP	•	•	•	Pesotum
Carswell, Margaret		LAS	•	•	•	Evansville
Carter, Forest	SATC	ME	•	•	•	Windfall, Ind.
Carter, Frank Stanley	SATC	EE	67	•	†	Litchfield
Carter, Herbert Duane		ChE	33	•	•	Cleveland, O.
Carter, Margaret		LAS	•	•	•	Jamaica
Carter, Vena		Com	•	•	•	Rockford
Carter, Wilbur Maxwell		Arch	110	•	†	Indianapolis, Ind.
Carthaus, William James		ChE	68	•	†	St. Louis, Mo.
Caruso, Joseph Arthur	SATC	EE	•	•	•	Chicago
Carvlin, George Michael		LAS	•	•	•	Chicago
Cary, Agnes Bernice		HELAS	•	•	•	La Grange
Caskey, Arthur David		EE	109	•	†	Chicago Heights
Caskey, George Rollin	SATC	ME	35	•	†	Chicago Heights
Cassidy, Claudia Caroline		Jnl	33	•	†	Urbana
Cassingham, Mary Dorothy		Jnl	•	•	•	Champaign
Casson, Thomas Francis	SATC	CE	•	•	•	Elgin
Castendyck, James Ross		ME	•	•	•	LaSalle
Cates, Robert Elmer		Agr	•	•	•	Bement
Cathcart, Annabel Elizabeth		SS	8	•	†	Marissa
Catlin, Malcolm Cresswell	SATC	Agr	•	•	•	Farmington
Caton, Elizabeth Steele		SS Lib sp	•	•	•	Ottawa
Cavanaugh, Marie Elizabeth		LAS (SS)	104	•	†	Urbana
Cavins, Harold Maxon		Agr	•	•	•	Charleston
Celba, Daniel	SATC	CE	•	•	•	Chicago
Cernik, Bede Wenceslaus		SS	15½	•	•	Wahoo, Neb.
Cerny, Otto Frank	SATC	Arch	39	•	†	Chicago
Cesar, Winfield Dewey	SATC	ME	•	•	•	Chicago
Cessna, Evelyn Mildred		HELAS	64	•	†	Oak Park
Cessna, Robert		Agr	105½	•	†	Danville
Chabot, Arthur Simon	SATC	Agr	16½	•	†	Kankakee
Chadwell, John Toole	SATC	LawP	•	•	•	Quincy
Chadwick, John Russell	SATC	LAS	•	•	•	Tuscola
Chalfant, Maude Britton		SS	2½	•	•	Carmi
Challacombe, Clifford Theodore	SATC	EE	•	•	•	Medora
Challis, Dorothy Bryant		Chem	•	•	•	Kansas City, Mo.
Chamberlain, Aaron Vine		Agr	31	•	•	El Dara
Chamberlain, Olivia Langdon		Agr	•	•	•	Toledo, O.
Chamberlain, Russell Herbert	SATC	ME	•	•	•	El Dara
Chamberlain, Walter Orrin	SATC	ME	•	•	•	Berwyn
Chambers, Genevieve Dorothy		HEAgr	•	•	•	Chicago
Champion, Randall Warren	SATC	LawP	•	•	•	Madison
Chan, Siu Kun		SS	8	•	•	Hong Kong, China
Chan, Ye Young		SS	135½	•	•	Shing Miu City, China
Chandler, Emeline Lucinda		SS	5½	•	•	Warsaw
Chandler, George La Verne		Com	24	•	†	Hinsdale
Chandler, James Willard, Jr.	SATC	EE	•	•	•	Vandalia

† "Enrolled" in the S.A.T.C., but not inducted.

Chang, Chia Chieh	ME	•	†	Peking, China
Chao, Hwiu Wu	ME	10	†	Honan, China
Chao, Wei Han	ME	•	†	Honan, China
Chapman, Harold Harvey	SATC Com	•	†	Springfield
Chapman, Harry Henderson	SNTC ME	110	†	Hinsdale
Chappell, Mrs. Margaret McCall	SS	1	•	Winchester, Mass.
Charles, Andrew Hoyle	SATC CerE	113	•	Chicago
Charleston, Wilber Frank	SATC ChE	•	•	Chicago
Charlet, Louis Walter	SATC ME	71	†	Kewanee
Charlson, Hilmer Adrian	SATC ME	•	†	Porter, Ind.
Chase, Anna Belle	LAS	60	†	DeKalb
Chase, Carroll Gayton	SATC LAS	33	†	River Forest
Cheadle, Arthur Thomas	SATC ME	•	•	Lockport
Cheaney, Thomas Franklin	SATC EE	•	†	East St. Louis
Cheever, Hurlbert Craig	Arch	86	†	Waterloo, Ia.
Chen, Shao Shun	Agr	121	†	Washington, D. C.
Chen, Yu Ching	CE	10	†	Honan, China
Chenoweth, George Le Roy	SATC ChE	•	†	Hamilton, Md.
Cherry, Oscar Allen	Chem	94½	†	Pawnee
Chessman, Samuel Cecil	ME	42	†	Salem, O.
Chester, Jamie Margaret	HELAS (SS)	100½	†	Champaign
Chew, Edward Reynolds, Jr.	Agr	•	•	Pueblo, Colo.
Chiang, Yu Ying	LAS (SS)	50½	•	Soochow, China
Child, Thomas Harold Gascoigne	SATC MdP	•	•	Urbana
Childs, Edmond Lyman	SATC Com	29	†	Rockford
Childs, Geneva Miriam	SS	3	•	Joy
Childs, James Bennett, A.B., 1918	SATC Lib	•	†	Champaign
Chiles, James Clarence	Com	•	†	Allon
Choisser, Ferne	LAS (SS)	72	†	Benton
Chou, Ching-fu	Agr	32	†	Seattle, Wash.
Chou, Hsien Sung	Com	30	†	Tientsin, China
Chou, Ming Heng	SS	8	•	Shanghai, China
Christ, George Phillip	ChE	90	•	Quincy
Christ, Robert Johnson	CE	75	†	Chicago
Christensen, Tyra Myrtle	LAS	•	†	Chicago
Christian, Elmer Charles	Agr	31	†	Chicago
Christiansen, Gerda	LAS	•	†	Chicago
Christie, Charles William	MdP	•	•	Rantoul
Christopher, Laurence Clark	SATC LawP	•	•	Jennings, La.
Christy, Mae	LAS	32	•	Urbana
Crittton, Ernest Fairfax	Com	49	†	Oak Park
Chung, Pan Sien, B.S., 1917, M.S., 1918	SS	•	•	Shanghai, China
Church, Daniel	SATC ChE	24	•	Marissa
Church, Orland Arrison	Com	•	†	Danville
Churchill, Fred Weaver	Agr	76	†	Fairbury
Churchill, Woodford McDowell	SATC Agr	90	†	Fairbury
Churton, Florence Helen, B.S., 1917	LAS irr	131	†	Plainfield, N. J.
Cierpik, Casimir Stanley	ME	126	•	Chicago
Clafin, Edward Cahoon	SATC LAS	•	•	Lombard
Clapp, Howard Clyde	SATC Com	•	•	Morris
Clarahan, Lewis Arthur	SATC Com	57	†	Oak Park
Clark, Arthur Tuttle	SATC Com	•	†	Mattoon
Clark, Dean Mcredit	SATC Com	•	†	Chicago
Clark, Dewey Willis	SNTC Com	•	•	Sullivan
Clark, Elinor Dourland	LAS	•	†	Kansas City, Mo.
Clark, Elizabeth Diantha	SS	•	•	Delavan, O.
Clark, Ephraim Stuart	Com	•	†	Dana
Clark, Frank Roundy	ChE(SS)	113	†	Wheaton
Clark, Harold Dean	Com	76	•	Hinckley
Clark, Harry Cecil	Agr	52	•	Champaign
Clark, Hester Almata	Com	•	†	Westville
Clark, Irwin	SATC EE	•	†	Wapella
Clark, James William	SATC CE	16	†	Chicago
Clark, Jennie	HELAS	72	†	Henry
Clark, John Elliott	SATC Chem	•	†	Georgetown
Clark, John Henry	SATC ME	•	†	Urbana
Clark, John James	SATC Agr	•	•	Chicago
Clark, Kathryn Dumford	LAS	•	†	Winchester
Clark, Kenneth Woodyard	Jnl	37	†	Washington, D. C.
Clark, Margaret	Agr	115	†	London Mills
Clark, Marie Mildred	LAS	•	†	Ancona
Clark, Mildred Clare	SS	7	•	Galesburg
Clark, Rebecca Isabelle	LAS	•	†	Mansfield
Clark, Richard Thomas	SATC CE	•	†	North Aurora
Clark, Robert Charles	Agr	90	†	Mt. Morris
Clarke, Helen Camille	Mus	•	†	Mt. Carmel
Clarke, Walter James	Agr	19	†	Chicago
Clausen, Arthur Dwight	SATC Agr	•	†	Cortland
Clausen, Leon Hans	SATC ME	•	•	McNabb
Claycomb, Mrs. Nina Carter	HELAS	116	†	Champaign
Clegg, John Joseph	SATC Agr	•	†	Chandlerville
Clement, P Meints	SATC LAS	•	•	East St. Louis

† "Enrolled" in the S.A.T.C., but not inducted.

Clements, Arlo Bina	SATC	EE	•	•	Des Plaines
Cleveland, Chester Wilson	SATC	Jnl	48½	• † †	Plymouth, Ind.
Cleveland, Mary Jane		LAS		• † †	Plymouth, Ind.
Clifford, John Michael	SATC	ME		• † †	Farmer City
Clifton, Knute Norman		SS	5½	•	Ishpeming, Mich.
Cline, Byron Ray	SATC	Agr		•	Virginia
Cline, Marquerite Arabelle		HELAS (SS)	98½	• † †	Lincoln
Clinkenbeard, Adeline Alice		LAS (SS)	23	• † †	Urbana
Clinkenbeard, John Sterling	SATC	EE		• † †	Urbana
Clorfine, Irwin Bernard		Jnl	103	• †	Chicago
Close, Mrs. George Lytle		SS		•	Oberlin, O.
Close, Paul Dunham	SATC	ME	72	• † †	Chicago
Cloud, William Ephraim	SATC	Com		•	Manchester, Ia.
Clover, Everett Le Roy	SATC	Agr	69	•	Denver, Colo.
Cloyes, Edith Field		Chem		•	Chicago
Clute, Beulah Kathryn		HELAS	28	• † †	Joliet
Clute, Laurence Clifford	SATC	EE		•	Milford
Clutterham, Roy Lester	SATC	Com		•	Chicago
Clync, John Mitchel	SATC	CE	30	• †	Maple Park
Clyne, Joseph Norman	SATC	ME		• † †	Allon
Coakley, William Ambrose	SATC	ME		•	Toulon
Cobb, Helen Dorothy		LAS	64	• † †	Rockelle
Cobb, William Henry		Com	103	• † †	Tipton, Ia.
Coburn, Richard Wall	SATC	Com		•	Chicago
Cochran, Florence Alwilda		LAS (SS)	69½	• † †	Champaign
Cochran, Gilbert Emlyn	SATC	Com	29	• † †	Champaign
Cochran, Keller Holmes	SATC	ME		•	Lawrenceville
Cochrane, Helen Marie		LAS	16	•	Danville
Coddington, Forrest Carter		ME		• † †	Champaign
Coddington, Helen Lucile		HELAS	15	• † †	Champaign
Coe, Martha Elizabeth		Agr		• † †	Springfield
Coen, Donald George	SATC	ME		• † †	Normal
Coffee, Bess Anna		HEAgr		• † †	Elgin
Coffeen, Richard Preston		ME		• † †	Champaign
Coffey, Mary Irene		LAS sp		•	Seymour
Coffey, Robert	SATC	Com		•	Tipton, Ind.
Coffman, Alden Williams	SATC	LAS		• † †	Davenport, Ia.
Coffman, Everett Wayne	SATC	ME		•	Walker
Coffman, Mark Stark	SATC	Com		• † †	Augusta
Coggan, Kenneth Mills		MdP	36	• † †	Clay City
Cohen, Florence		LAS		• †	Chicago
Cohen, Julius A.B., 1917	SATC	Law		•	St. Louis, Mo.
Cohn, Harold	SATC	Chem		•	Chicago
Cohn, Max Jay	SATC	Com	25	•	Chicago
Cohon, Beryl	SATC	LAS	19½	• † †	Chicago
Colbert, Ernest Asher		SS	4½	•	Waverly
Cole, Clarence Franklin	SATC	ME		•	Ludlow
Cole, Ralph Russell	SATC	ME		•	Rockelle
Cole, Stephen Earl	SATC	CE	28	• † †	Williamsfield
Colebank, Roy Bradford	SATC	LAS		•	Onarga
Coeman, Oren		LAS	41	• †	Cartersville
Collins, Carlton Spear	SATC	LAS		•	Elgin
Collins, Clarence Jackson		ChE	8	• † †	South Bend, Ind.
Collins, Earle John		Com		• † †	Chicago
Collins, Floyd Sterling	SATC	Com		•	Nokomis
Collins, Fred Adair		Agr	69	• † †	Evanston
Collins, Ina May		LAS (SS)	91	• †	Hillsboro
Collins, Julien Hampton		Com	96	•	Chicago
Collins, Walter Samuel	SATC	Agr	32	• † †	Rockford
Colmey, Robert Hamilton	SATC	Com		•	Chicago
Colville, Clifford Goring	SATC	LAS		•	Oak Park
Colvin, Esther Marie		LAS sp	6	• † †	Nebo
Colvin, James Clinton	SATC	LAS		• † †	Hillsboro
Colvin, Mrs. Reba Lydia		LAS		• † †	Champaign
Colwell, Lyle Miller		Com	49	• † †	Ottawa
Colwell, William Tracy	SATC	CE	71	• † †	Ottawa
Colyer, Raymond Green	SATC	MdP	60	• † †	Carbondale
Comm, Albert Benjamin		AE	114	• † †	Chicago
Comstock, Keyon Hinister		Agr	52	•	Chicago
Conde, Leonore Adele		LAS	32	• † †	Hammond, Ind.
Condit, Forrest McCool	SATC <sup>1</sup>	LawP		• † †	Evansville, Ind.
Condit, Ralph Ellis	SATC	Com		•	Tiskilwa
Condit, Russell Odell	SATC	Agr		•	Chicago
Condon, Edith Frances		HELAS	98	• † †	Sheffield
Condon, Frank Watrous		EE	93	• † †	East Los Vegas, N. M.
Condon, Margaret Adele		SS	74	•	Sheffield
Condon, Robert Scofield		SS		•	Bloomington
Confrey, James Arthur	SATC	MSE		•	LaSalle
Conklin, Asa Bristol		Agr	107	• † †	Aurora
Conklin, Thomas Roscoe		LAS		•	Aurora
Conklin, William Spencer	SATC	Com		•	Loda
Conkwright, Douglas Dewey	SATC	LAS		•	Urbana
Conley, Mae		HELAS	64	• † †	Sheldon

<sup>1</sup> "Enrolled" in the S. A. T. C., but not inducted.

Conn, Harlan Dewitt	SATC	Com		* † †	Champaign
Connett, Wesley Leonard	SATC	Arch	58	* † †	St. Joseph, Mo.
Connor, Lois Mildred		LAS	24	* † †	Champaign
Conrad, Clarence Leonard		EE	23	* † †	Charleston
Conrad, Clyde Kenneth		MdP	30	* † †	Nitro, W. Va.
Conrad, John Walter		Com		* † †	Charleston
Conroy, George Stewart	SATC	LAS		* † †	Sreator
Conside, William James	SNTC	Com		* † †	Fullton
Conwisher, Louis	SATC	ME		* † †	Chicago
Cook, Mrs. Delphine Ayres		Mus sp		* † †	Champaign
Cook, Herman Louis	SATC	ChE	33	* † †	Terre Haute
Cook, Horace Wells	SATC	Com		* † †	Urbana
Cook, Howard Haydon	SATC	Com	64	* † †	Shelbyville
Cook, John Manchester		Com	107	* † †	Chicago
Cook, Orval Ray	SATC	CE		* † †	Grant Park
Cooke, Russell Stewart	SATC	CE	107	* † †	Chicago
Cooley, Arthur William	SATC	LAS		* † †	Evanston
Cooley, Floyd Seyller	SATC	Com	70	* † †	West McHenry
Coolidge, Edward Levant	SATC	ME	5	* † †	Princetonville
Coolidge, James Henry	SATC	Com		* † †	East Cleveland, O.
Coolley, Anna		Com	33	* † †	Broadlands
Coolley, Marion Fowler		Com	6	* † †	Danville
Cooney, Lucille Elizabeth		Mus sp		* † †	Pekin
Coons, Charles Curtis	SATC	CE		* † †	Gary, Ind.
Cooper, Fay Maxey	SATC	LAS	30	* † †	Little Rock, Ark.
Cooper, Glenn Everett	SATC	Com		* † †	Kankakee
Cooper, Isadore Earl	SATC	ChE	64	* † †	Chicago
Cooper, Maitland Henry	SATC	ME		* † †	Ottawa
Cooper, Mary		Jnl	32	* † †	Hillsboro
Cope, Harold Fleming	SATC	LAS	67	* † †	Champaign
Cope, Howard Louis	SATC	Agr		* † †	Salem
Copes, Ira Otho		Agr	55	* † †	Green Valley
Copley, Mary		LAS	26	* † †	Joliet
Copping, Gale Edward	SATC	AE		* † †	Ottawa
Corbett, Esther		HEAgr	65	* † †	Edwardsville
Corbett, Kenneth Hughes	SATC	LAS		* † †	Champaign
Corbridge, Winnie James	SNTC	EE		* † †	Rushville
Cord, Joy Sylvia		HELAS	42	* † †	Philo
Cordell, Della Grace		Mus	165½	* † †	Macomb
Cordell, Robert Roland		Com	29½	* † †	Macomb
Corey, Harry Eugene	SATC	Agr		* † †	Chicago
Corey, Raymond Sheridan	SATC	Com		* † †	DeKalb
Corley, Ralph Conner		MdP		* † †	Tower Hill
Cormack, Joseph Clarence		Com (SS)	102½	* † †	Glencoe
Cornelius, Maurice Leon	SATC	CE	34	* † †	Kewanee
Cornelisen, Paul Drew	SATC	EE	35	* † †	Pittsburg, Kan.
Cornelisen, Ralph White	SATC	RCE	110	* † †	Pittsburg, Kan.
Cornwell, Earl Dennis	SATC	LAS (SS)	33	* † †	Newton
Cornwell, Ross Eugene		ME		* † †	Neoga
Corson, Harold Pee	SATC	MdP	33	* † †	Springfield
Coss, Harold Thornton	SATC	CerE		* † †	Champaign
Cossairt, Laura Grace		SS	7	* † †	Potomac
Cotes, Mervin Franklin	SATC	Com		* † †	Peoria
Cothern, Leland Irvin	SATC	CE		* † †	Pana
Cothern, Lola Oneita		SS	16	* † †	Pana
Cotta, Maurice La Roy		MSE	72	* † †	Rockford
Cotton, Alonzo Atchinson, Jr.		SS	119	* † †	Vermillion, S. D.
Cotton, Frank Earl	SATC	Agr		* † †	Homer
Cottrell, Frances Bernice		LAS		* † †	Urbana
Couchman, Alice Irene		LAS (SS)	73½	* † †	Sumner
Coughanour, Richard David		EE	78	* † †	Dallas, Tex.
Coughlan, Ruth Ann		Jnl		* † †	Kokomo, Ind.
Coulter, Roscoe William Bryan	SATC	Agr		* † †	Flat Rock
Cousins, Wanda Maurine		LAS (SS)	70	* † †	La Fayette, Ind.
Cover, Olive		LAS	93½	* † †	Urbana
Cover, Sylvia		HELAS	85	* † †	Urbana
Covey, Edwin Linn		Law	28	* † †	Peoria
Covey, Ira Jay, Jr.	SNTC	Law (SS)		* † †	Peoria
Cox, Gerald Judy		ChE	109	* † †	Bridgeport
Cox, Ruth Emily		LAS		* † †	Urbana
Craig, Hazel Iona, A.B., 1910, B.Mus. 1913		Mus irr	15	* † †	Champaign
Craig, Helen Elizabeth		LAS	98	* † †	Hindsboro
Craig, John Andrews		EE	96	* † †	Hindsboro
Craig, John Henry		Agr	134	* † †	Lewisstown
Craig, Milo Leslie	SATC	Agr		* † †	Kewanee
Craig, Ora Mae		SS	7½	* † †	Rantoul
Craig, Palmer George	SATC	AE	35	* † †	Danville
Crammond, Ralph Gibson	SNTC	ME	31	* † †	Peoria
Crampton, Richard Sidney	SATC <sup>1</sup>	LAS		* † †	Evanston
Crandell, Earl Mcville		Agr	72	* † †	Oak Park
Crane, Henry Ludlow		Agr		* † †	Clearmont, Mo.

<sup>1</sup>"Enrolled" in the S.A.T.C., but not inducted.

Crane, Martin		MinE	47	• + +	Chicago
Crangle, Walter Francis	SATC	EE		• + +	Onarga
Crapo, Aileen Marie		LAS	32	• + +	Kankakee
Crate, Ethel Frances		LAS	103	• + +	Bellflower
Cratty, Walter Bryant	SATC	Com	24	• + +	Rochelle
Craver, Alva Wilfred	SATC	Agr	31	• + +	Harvey
Crawford, Carroll Victor		Agr		•	Danville
Crawford, Ira Maxwell	SATC	Agr		• +	Milford
Crawford, Nelle Florence		Mus sp		• + +	Champaign
Crawford, Norman Acheson	SATC	LAS		• + +	Doswell, Va.
Crawford, Robert Acheson		MdP		• + +	Streator
Crawley, Kenneth Grim	SATC	AE		•	Kansas City, Mo.
Crawshaw, Earl Harwood	SATC	AE	21	• + +	Chicago
Crebs, John Montgomery, Jr.	SATC	Com	63	• + +	Carmi
Cremeans, Lola Merle		HELAS	67	• + +	Urbana
Cremeans, Nida Edith		LAS	49	• + +	Urbana
Crew, Maurice Croushorn	SATC	ChE	32	• + +	Aurora
Crews, Arch Baiton	SNTC	Com		•	Effingham
Crews, Orville Jennings	SATC	Com	67	• + +	Sioux City, Ia.
Crick, John Richard	SATC	Com		•	Lewistown
Crickman, Chlorus William	SATC	Agr	31	• +	Clay City
Criley, Harlan Russell		SS	132½	• + +	Champaign
Crill, Clarence Elmer	SATC	Com		• + +	Monroe Center
Crill, William Franklin	SATC	Agr	28	• + +	Monroe Center
Crim, Charles Harold		CE	107	• +	Estherville, Ia.
Crink, Elmer Stimpson	SATC	Agr		•	Milford
Cripe, Ruth Adeline		LAS		• + +	Frankfort, Ind.
Cristal, Morris		ChE	8	•	St. Louis, Mo.
Crockett, William Henry, Jr.	SATC	MdP		•	Chicago
Croll, Henry Albert	SATC	EE		• + +	Chicago
Cromer, George William	SATC	ChE	34	• + +	West Chicago
Cromwell, Harold Clyde		Agr sp		• + +	Momence
Cronin, Marie Louise		LAS	101	• + +	Chicago
Cronwell, Bernhard Johannes		MdP		• +	Hanover
Crookshank, Robert Lee	SNTC	ME		•	Mattoon
Crosby, Bruce Pitts	SATC	Agr		•	Manito
Crosby, Glen Monroe		ME	41	• +	Maywood
Cross, Hugh Ware		Lato	29	• + +	Jerseyville
Crossley, Clarence Francis		ChE	5	• +	St. Louis, Mo.
Crouter, Mrs. Dorothy Iddings		SS		•	Charlevoix, Mich.
Crum, Hazel Amy		LAS	60	• +	Warsaw
Crumbecker, Dwight		AE		•	Richland Center, Wis.
Cruser, Cecil La Rue		MdP		• + +	Riverton
Cryder, Roy Eugene		Agr	51	• +	Morris
Cuchna, Fred Carl	SATC	LAS		•	Chicago
Cudner, Harry Edward	SNTC	ME		•	Berwyn
Cullin, Victor		Com	70	• +	Taylorville
Culp, Lester Bernholt	SATC	Com		•	Bethalto
Culter, Ralph Emerson		Com	69	• +	Gibson City
Cummings, Ira Roberts	SATC	EE	36	• + +	Joliet
Cummings, Mattie Strother		HELAS		• + +	Gilliam, La.
Cummings, Robert Harold	SATC	Agr		•	Caledonia
Cummings, Rodney Keeney	SATC	Com		•	Rockford
Cummings, William Gordon	SATC	CE		•	Geneva
Cummins, Edward John		MdP	20	•	Murphysboro
Cunha, Leopoldo, Jr.		RCE	100	• + +	Sao Paulo, Brazil
Cunningham, Irene Mary		LAS	96	• + +	Rossville
Cunningham, John Coss	SATC	LAS		•	Liberty
Cunningham, Willard Thomas	SATC	Com		• + +	Rossville
Cuppy, Robert Overton	SATC	Arch		• + +	Lafayette
Currie, Althea		SS	130	•	Loda
Curtis, Charles Carey, A.B., 1912, A.M., 1914		Law	70½	• + +	Champaign
Curtis, Clyd Earl	SATC	Com		•	Harris
Curtis, Elisa		LAS (SS)	123	• + +	Santiago, Chile
Curtis, Guy Parish	SATC	LAS		• + +	St. Louis, Mo.
Curtis, Hazel		Jnl	55	• + +	Kewanee
Curtis, Miriam Austin		HELAS (SS)	114½	• + +	St. Louis, Mo.
Cusack, Thomas Francis	SATC	Com		•	Oak Park
Cushine, Sidney Smith	SATC	LAS		•	Chicago
Cushman, Josephine Amanda, Ph.B., 1917		Lib	32	• + +	Akron, O.
Cusick, Thomas James Casey	SATC	ChE		•	Edwards
Cuskaden, Myron E	SNTC	ME	10	•	Arcola
Custer, John Howard	SATC	Com	61	• + +	Chicago
Cutter, Vera Catherine		LAS		• + +	Oswego
Dack, Gail Monroe	SATC¹	Agr		• + +	Elgin
Dagley, James Gordon	SATC	Com		•	Norris City
Dailey, Arthur Aloysius		Jnl	78	• +	Houston, Tex.
Dale, Charles Sherman		SS	18	•	Fisher
Dale, Rex White		SS	6	•	Lebanon, Ind.
Dale, Sarah, A.B., 1914, A.M., 1916		SS	8	•	Decatur

¹ "Enrolled" in the S.A.T.C., but not inducted.



Dales, Chester Lowell	SATC	ME		*	Rochelle
Dallenbach, Maybell May, A.B., 1917		SS	131		Champaign
Dalrymple, Lena		SS	4		Red Oak, Ia.
Dalrymple, Martin Mour	SATC	Com		*	Chrisman
Dalrymple, Robert Hew		LAS	9	†	Terre Haute, Ind.
Dalton, Truman Morgan	SATC	Com		*	Kinderhook
Daly, Helen		LAS	121	†	Monmouth
D'Amato, Dominick	SATC	ChE		*	Chicago
Dame, Orval Walter	SATC	LAS		*	Oxford, Ind.
Damisch, Herbert Raymond	SATC	Agr		*	Pingree Grove
D'Angelo, Andrew Richard		MdP	35	†	Everett, Mass.
Dangremond, Carleton Elmer	SATC <sup>1</sup>	CE		†	Chicago
Dangremond, LeRoy Marion Gerritt	SATC	CE		†	Chicago
Daniel, Benjamin Andrew	SATC	Com		*	Murphysboro
Daniel, Ruth		Mus	103	†	Kewanee, Ind.
Daniels, Charline Clover		Com	24	†	Long Beach, Cal.
Daniels, Rupert Samuel	SATC	ChE		†	Harvey
Daniels, Stewart Derry		Com	35	†	Jerseyville
Danielson, Carl Rudolph	SNTC	EE		*	Loda
Danielson, Cecil Reynolds	SATC	Com		†	Rockford
Danneberger, Charles Obourn		SS	8	*	Shelbyville
Danner, Raymond Frederick	SATC	ChE		*	Lincoln
Darley, Samuel Dawson	SATC	Agr	30½	†	Jacksonville
Darling, Ray Abner	SNTC	ME		*	Waterman
Darnall, Warren Verne		Com	35½	†	Oak Park
Dart, William John, Jr.	SATC	Com		†	Chicago
Dasher, Gaylord Morris	SNTC	EE		†	Van Wert, O.
Dauber, Addis Lionel		Agr		†	Chicago
Daughterity, Byron Warren <sup>1</sup>		LAS		†	Streator
Davidson, Bernard Eugene	SNTC	CE	71	†	Keokuk, Ia.
Davidson, Fred Alexander		Agr	33	†	St. Louis, Mo.
Davidson, Genevieve Alice		Chem	56	†	Chicago
Davidson, Lois Ellen		Com	30	†	Crawfordsville, Ind.
Davidson, Mary Louise		LAS	92	†	Carthage
Davis, Alexis Bartlett		LAS		*	Little Rock, Ark.
Davis, Beryl		Com	31	†	Tampico
Davis, Branson Arthur	SNTC	AE		†	Shawnee, Okla.
Davis, Charles Brewer		Jnl	85	†	Champaign
Davis, Charles Jesse	SATC	ME	53	†	Chicago
Davis, Clare Rudolph		SS	43½	*	Donnellson
Davis, Darrell Rozel	SNTC	Com		†	Taylorville
Davis, Dwight Farrier	SATC	Agr	23	†	Rossville
Davis, Edith Isabel		HELAS (SS)	102	†	Kankakee
Davis, Erva Jemima		SS Lib sp		*	Shelbyville
Davis, Erwin Frederic	SATC	ME		*	Rockford
Davis, Evan Merrill	SATC	LAS (SS)		†	Urbana
Davis, Frances Margaret		LAS (SS)	63	†	Urbana
Davis, George Andrew	SATC	LawP		†	Hazel Crest
Davis, Harold Baltzell	SATC	Arch (SS)	5	†	Champaign
Davis, Helen Theresa		LAS sp		†	Chicago
Davis, Herbert Spencer		LAS	53½	†	Louisville
Davis, Irwin	SATC	MdP		†	Belleville
Davis, Kenneth Isaac		Com	90	†	Tampico
Davis, Leslie Mitchell		SS		†	Kansas City, Mo.
Davis, Loxa Edna		LAS	86	†	Charleston
Davis, Lyman Kent		LAS	115	†	Donnellson
Davis, Mary Belle, A.B., 1901, A.M., 1916		SS		*	Urbana
Davis, Reed Rolo	SATC	CE		*	Burlington
Davis, Robert Holcomb		Chem (SS)	26	†	Philadelphia, Pa.
Davis, Roy Vernon		Agr sp		†	Longview
Davis, Ward Owen		Agr	110½	†	Ramsey, Ind.
Davis, William George		ChE		*	Du Quoin
Davison, Eugene L		Agr		†	Springfield
Davison, Homer Reese	SATC	Agr	28	†	Springfield
Davison, Robert Mamie		Jnl		†	Springfield
Dawley, Earle Reed		CE	107	†	Passaic, N. J.
Dawley, Robert Worthington		ChE (SS)	103	†	Passaic, N. J.
Dawson, Floyd Wildon	SATC	Agr	15	†	Milford
Dawson, Gertrude Elizabeth		LAS		*	Chicago
Dawson, Robert Harvey		EE	71	†	Monticello
Dawson, Roger Mills		CE	32½	†	Decatur
Day, Esther Victoria		LAS	30	†	Bement
Day, Eugene Dallas	SATC	LAS		†	Jerseyville
Dayton, Scott Lewis	SATC	CE		*	La Moille
Dayton, Wayland W		Agr	102	†	West Chicago
Deam, Gale Millard	SATC	ME		*	Chicago
Dean, Harold Frederick	SATC	ME		†	Mendota
Deane, Dorothy Stephenson		SS	54	*	Monango, N. D.
Dearborn, Harry Raymond	SATC	Com		*	Riverside
Debenham, Harold		ME		*	Danville

<sup>1</sup>"Enrolled" in the S.A.T.C., but not inducted.<sup>2</sup>Deceased.

Decker, Frank Howell	SATC	Agr	*	Mt. Vernon
Decker, Ralph Talbot	SATC	ChE	57	Augusta
Deidman, Philip Thornton	SNTC	EE	*	Kansas City, Mo.
Dee, Nelle Lehman		SS	5	Lebanon
Deeming, William Seaber	SATC	Com	34	Sterling
Deeren, William Elwood	SATC	Agr	*	Sharpsburg
De Groot, Walter Charles		Agr	85	Washington, D. C.
De Groot, William Benton	SATC	Agr	28	Washington, D. C.
De Hart, Myra Lois		HELAS	93	Davenport, Ia.
De Haven, Frank Isaac	SNTC	Com	*	Hoopsestown
Dehner, Walter Leonard	SNTC	Agr	100	Whitehouse, O.
Dehr, William Bohlander		EE	*	Hinsdale
Deless, David Harold	SATC	LAS	*	Clayton
Dell, Dorothy		HELAS	66	St. Louis, Mo.
De Long, Clarence Henry		CE	61	Fithian
Delp, Joseph Jacob	SATC	ME	*	Lanark
Demy, Arta Lee		SS	1	Browning
Denby, Helen Elizabeth		HELAS	30	Carlinville
Dencer, Frederick A	SATC	ChE	*	Chicago
Denison, Maggie Myrtle		SS	39½	Conway, Ark.
Dennett, Kenneth		Agr	*	Wilmette
Dennis, Lois Esther		Com	*	Homer
Denny, Frank Morey		ME	*	Vandalia
Denton, Mervin Okey	SATC	Agr	*	Millersville
Derler, John Clarence	SATC	Com	30	Lewistown
Derby, Walter Johnston		ME	*	Chicago
Derrough, Ralston Fletcher	SATC	Arch	*	Champaign
Detweiler, Earl Kratz	SATC	EE	*	Sterling
Detwiler, George Farran		LAS	25	Alado
Deuss, Hugo Otto		MdP	*	Chicago
Deutch, Louis		EE	*	Shelburn, Ind.
Devere, Martha Catherine		HELAS	107	Kankakee
Devlin, Julien Walter		Com	67	Chicago
De Voe, Earle Lawrence	SNTC	Com	*	Freeport
Devries, Jerry	SATC	ME	*	Chicago
Dewenter, John Robert		LAS	*	Bloomington
Dewey, Abigail Keith		LAS	*	Macille, Ia.
De Witt, Charles William	SATC	Agr	*	Downers Grove
De Witt, Lloyd Rollan	SATC	Chem	*	Dahlgren
Dexter, Lula Belle, A.B., 1914, B.M., 1915		Mus irr	*	Urbana
Daheim, Ray Emerson	SATC	AE	*	Dayton, O.
Dibble, Hope Norman		LAS	*	Glen Ellyn
Dibble, Sue		SS	6½	Aurora, Ore.
Dick, Frank Josef		LAS	71	Quincy
Dice, William Rush	SATC	Com	35	Charleston
Dickason, Meade Walter	SATC	Com	*	White Hall
Dickerson, Leo Baker	SATC	ChE	*	St. Louis, Mo.
Dickhut, Albert Samuel	SATC	Com	*	Quincy
Dickinson, Frank Greene	SATC	MSE	*	Griggsville
Dickinson, Lloyd Wood	SATC	Chem	*	Tuscola
Dickinson, Robert Ellis	SATC	Com	*	Little Rock, Ark.
Dickler, Edward Carl		ChE	20½	Dwight
Dicks, Carl Buford	SATC	LAS	*	Brooklands
Dickson, Lawrence Evans		LAS	99	Chicago
Dickson, Marilyn Bellew	SATC	Chem	*	La Harpe
Diefenderfer, George Woodruff	SATC	Agr	*	Chicago
Diehl, Harold Allan	SATC	Com	32	Chicago
Diekmann, Harold Irwin	SATC	Agr	*	Dolton
Diesel, Malvern Louis	SATC	LAS	*	St. Louis, Mo.
Diesel, Wilfred August		ME (SS)	56	Chicago
Dieterich, Ruth Runkle		LAS	52	Beardstown
Dietrich, Carl Bernhardt		Com	36	St. Louis, Mo.
Dietrich, Ruth Josephine		LAS	*	Bremen, Ind.
Dietrich, Sterling Miller	SATC	Com	32	Bremen, Ind.
Dietrich, Walter George	SATC	Com	*	Pekin
Dietz, Marie Alena		LAS	63½	Burlington, Ia.
Dildine, William Edwin	SATC	Com	68	Freeport
Dillavou, Ora Dale	SATC	Com	*	Champaign
Dilling, Lela Lucile		LAS (SS)	63	Urbana
Dillinger, Carl John	SATC	CE	117	Portland, Ore.
Dillman, Joseph Harold	SATC	LawP	*	Tuscola
Dillon, Catherine Mary		LAS	*	Longview
Dillon, Edward Richardson	SATC	CE	*	Faring
Dinsmore, Margaret May		Com	*	Chicago
Dippold, William Dewey	SATC	Chem	*	Faring
Dirk, Ernest LeRoy		SS	10	Homerville, O.
Dittmann, Frances Emaline		Agr	*	Chicago
Dixon, Edgar Ogle		ChE	63	Chicago
Dixon, Harry Louis		Agr sp	*	W. Somerville, Mass.
Dixon, Mary Louise		LAS	75	Chicago
Dixon, Thomas Carl	SATC	Com	64	Vincennes, Ind.

\* "Enrolled" in the S.A.T.C., but not inducted.

Doak, George William	SATC	Agr	*	Robinson
Dobson, George Curran	SATC	Com	* † †	Elburn
Dobyns, Marie Jewell		LAS	* † †	Urbana
Dodds, William J	SATC	ME		Hume
Dodge, Astrid von Moth		Jnl	100	* † † Champaign
Dodge, Daniel David	SATC	Com		* † † Aurora
Dodge, Harrison Monroe	SATC	Com		* † † Bloomington
Dodge, Stanley Solon		Chem	62	* † † Chicago
Dodge, Mrs. Stella Evelyn		SS	32	* † † Oberlin, O.
Dodson, Arthur Fay	SATC	CE		* † † Rock Island
Doeden, Mrs. Nellie Render		SS	71½	* † † El Paso
Doering, Helmuth Reinhold	SATC	Com		* † † Tripp, S. D.
Doerr, Charles Jennings		Agr sp		* † † Chicago
Doerr, Clarence Leo		Agr	70½	* † † Chicago
Doerscher, Willis Harry		Com	113	* † † Chicago
Doeter, Julius, Jr.	SATC	Com		* † † Evansville, Ind.
Doi, Kiyoichi		Com		* † † Hilo, Hawaii, T. H.
Doisy, Roberta Josephine		Jnl (SS)	46	* † † Champaign
Dolby, Vernon A	SATC	AE	35	* † † Elgin
Dole, Leslie Champion	SATC	CE		* † † Mattoon
Dollahan, Leslie Warren	SATC	LAS		* † † Chicago
Dolph, Arthur H		SS	62½	* † † Fisher
Donaldson, Robert Jennings	SATC	EE	36	* † † Grayville
Donaly, Marie Ruby		SS	68	* † † Carterville
Dong, Tseh		LAS	75	* † † Yunnanfu, China
Donlevy, Fred Irwin	SATC	Chem		* † † Maywood
Donley, Walter Wellington		Law	21	* † † Peoria
Donlin, Logan Leon	SATC	CE		* † † Chicago
Donohoe, Dorothy Ann		LAS	64	* † † Macomb
Donohoe, Philip Henry	SATC	EE	65	* † † Macomb
Donovan, Mary Margaret		Com	107	* † † Champaign
Doolen, Deane Elmo	SATC	MidP		* † † Bondville
Dooley, Charles Clifford	SATC	ChE		* † † Elmwood
Dooley, Helen Elizabeth		LAS	69	* † † Little Rock, Ark.
Doolittle, Charles Bushnell	SATC	ME		* † † Chicago
Doolittle, David Douglass	SATC <sup>1</sup>	ChE		* † † Chicago
Doran, Millard Edward	SATC	Com		* † † East St. Louis,
Doretto, Peter Joseph		MidP	42	* † † Chicago
Dorsett, Eleanor Hedgecock		LAS	76½	* † † Augusta
Dorsett, Martha Matilda		LAS	102	* † † Augusta
Dorsett, Walter Harper		Agr	47½	* † † Augusta
Dorsey, Albert Howell		Com	5	* † † Hillsboro
Dorullis, Bertha Marie		LAS	64	* † † Centralia
Dory, Albert Joseph Lewis	SATC	ME		* † † Warsaw
Dory, Victor Paul		Com	101	* † † Warsaw
Doss, Paul Christian		Agr	110	* † † Philo
Doty, Helene Eleanore, A.B., 1918		SS	143	* † † Wilmette
Doty, Henry Fairchild		Com	63	* † † Highland Park
Doubet, Henry		ChE	137	* † † Peoria
Doud, Oscar Leo	SATC	Com		* † † Hunter, Okla.
Dougherty, Robert Hughes		ChE	105	* † † Peoria
Douglas, Frank Martin	SATC	ME		* † † Oblong
Douglas, Raymond Greene	SATC	LAS		* † † Albion
Dowd, John Matheny		MidP	64	* † † Fisher
Dowell, Carl Philip		EE	142½	* † † Port Richmond, N. Y.
Dowell, Clark Warner	SATC	Agr		* † † Pana
Dowell, Ralph Stanley	SATC <sup>1</sup>	ChE		* † † Bloomington
Dowiatt, Walter Alexander	SATC	Com		* † † Westville
Downend, Florence Eleanor		Mus (SS)	102	* † † Toulon
Downing, Emily Mott		SS	130	* † † Elburn
Downs, Charles McCabe	SATC	MidP		* † † Danville
Downs, Myron Day		Agr	108	* † † River Forest
Doyle, Edgar Lee		Com	1½	* † † Raymond
Doyle, Frank Butler		EE	70	* † † Raymond
Doyle, Irene May		LAS	99	* † † Clinton
Doyle, Leo	SATC	MixE		* † † Polo
Doyle, Marie		LAS		* † † Champaign
Doyle, Marion Clara		HELAS	103½	* † † Henry
Doyle, Maude Elizabeth		SS		* † † Stonington
Draher, Dorothy Josephine		LAS	17½	* † † Urbana
Drake, Alfred Lorraine		CerE		* † † Peoria
Drake, James Crawford	SATC	Com		* † † Memphis, Mo.
Drake, Robert Joseph	SATC	EE	53½	* † † Chicago
Dralle, Ruth Clara		LAS	42½	* † † Champaign
Drevno, Hymen Daniel		Com	7	* † † Chicago
Drew, David Dudley	SATC	ME		* † † Albany, N. Y.
Drew, Leslie Arthur	SATC	EE	72	* † † Cicero
Dreyfus, Monroe S	SATC	Com		* † † Fisher
Dreyfus, Morris Edward	SATC	ChE	70	* † † Kansas City, Mo.
Dreyfus, Stanley S	SATC	Com	66	* † † Fisher
Drohisch, Mollie Moore		LAS (SS)	120	* † † Decatur
Drollinger, Mrs. Beatrice Marie		SS	3	* † † Chicago

<sup>1</sup>"Enrolled" in the S.A.T.C., but not inducted.

Drury, Robert Johnson	SATC	ChE	• †	Chicago
Drysdale, Robert Alexander		Jnl	• †	Chicago
Du Bois, Addie Majella		LAS	• †	Athens
Du Bois, Louis Jury	SATC	ME	• †	Athens
Du Bois, Martha Harriet		LAS	• †	Athens
Du Chemin, Robert Harold		CE	• †	Maplewood, Mo.
Ducringer, Walter Edward		ME (SS)	• †	Elgin
Duffy, Thomas John	SATC	Chem	• †	Rock Island
Du Frain, Mrs. Mildred Dumke		SS	• †	Elmhurst
Du Frain, Viola Maude		LAS (SS)	• †	Alomence
Du Hamel, Nora Nevada		SS	• †	Villa Grove
Duke, Clarence Ormond	SATC	ME	• †	Henry
Dukes, Ruby Gertrude		Mus	• †	St. Joseph
Dulin, Martha Roberta, A.B., 1915		Lib	• †	Amarillo, Tex.
Dull, Merton Edward		ME	• †	La Grange
Dunbar, Glenn	SATC	Agr	• †	Taylorville
Duncan, Neal	SATC	ChE	• †	Mt. Carroll
Dungan, Albert Wallace	SATC	LAS	• †	Oak Park
Dungan, Charles Gaston	SATC	EE	• †	Richwood, O.
Dungan, Mrs. Elsie Lois		Mus (SS)	• †	Champaign
Dungan, John Homer		ME	• †	Brimfield
Dungan, John Urban		Com (SS)	• †	Richwood, O.
Dunkle, Florence Belle		LAS	• †	Champaign
Dunlop, Edmund Decker		LAS	• †	Mason City, Ia.
Dunn, Dorothy		LAS (SS)	• †	Waukegan
Dunn, Raymond Edward	SATC	MdP	• †	Decatur
Dunphy, Clifford Gordon		Com	• †	Evansville, Ind.
Dunscornb, George Baker	SATC	Com	• †	Windsor
Dunseth, Clara Forbes		Jnl	• †	Urbana
Duntley, Ruth Marian		LAS	• †	Bushnell
Du Plan, Henry Brackman	SATC	LAS (SS)	• †	Chicago
Durham, Arthur Burnam		ME	• †	Kenilworth
Durham, Morris David		LAS	• †	Bement
Durig, Eugene Fred	SATC	CE	• †	Danville
Darkin, Edmund Lawrence	SATC	ME sp	• †	Spokane, Wash.
Durst, Stanley Millard		EE	• †	West Frankfort
Dusky, Peter James	SATC	Com	• †	Kinsman
Dastheimer, Carl Campbell	SATC	ME	• †	Chrismon
Dustin, Charles Sanderson		Agr	• †	Urbana
Dutton, Hervey William	SATC	AE	• †	Sullivan, Ind.
Du Vall, Amelia Ruth		HELAS	• †	Urbana
Du Vall, Kenneth Keith	SATC	Com	• †	Decatur
Duvall, Vesta		LAS	• †	Aledo
Duvigneand, Vincent Reginald		ChE	• †	Chicago
Dux, Herbert Elmer	SATC	CE	• †	Indianapolis, Ind.
Dvorak, Raymond Francis	SATC	LAS	• †	Algonquin
Dvorin, Jacob	SATC	Agr	• †	Bayonne, N. J.
Dyar, Walter Salem	SATC	Agr	• †	Roanoke
Dyer, Edith May		SS	• †	White Hall
Dyer, Ethel Golden		SS	• †	White Hall
Dyer, Harold Ruskin		Arch	• †	Bloomington
Dykens, Earle Arnick	SATC	LAS	• †	Flora
Dymock, Alfred William	SATC	CE	• †	Wichita, Kan.
Dynes, George Crosby	SATC	Agr	• †	Annawan
Dyrenforth, Carroll		LAS	• †	Oak Park
Dyson, Edwin Arthur	SATC	Com	• †	Rushville
Dyson, Everett Mahlon	SATC	LAS	• †	Urbana
Bagleton, Charles McCullough	SATC	CE	• †	Champaign
Easlaitis, Peter Paul	SATC	Com	• †	Kewanee
Eastman, Albert Reynier	SATC	AE	• †	Rockford
Eaton, Berenice Loveday		LAS	• †	Urbana
Eaton, Colman	SATC	ME	• †	Rockford
Eaton, Donald Mack		Law	• †	Stockton
Eaton, Harry Everett	SATC	LAS	• †	Carterville
Eaton, Lester Maurice	SATC	ChE	• †	Du Quoin
Eaton, Ralph Melvin	SATC	LAS	• †	Mt. Carroll
Eaton, Rea Lincoln		Aer	• †	Eaton, Colo.
Eaton, Ruth		LAS	• †	Quincy
Eaton, William John		SS	• †	Worden
Eaton, William Low, Jr.		LawP	• †	Rockford
Eberhardt, Herman Luther	SATC	Chem	• †	Dundas
Ebersole, Robert Joseph	SATC	MdP	• †	Monmouth
Eberspacher, George Henry	SATC	Com	• †	Pana
Ebert, George Charles	SATC	ChE	• †	Quincy
Echenique, Guilherme, Jr.		Agr sp	• †	Pelotas, R. Gdo Lul, Brazil
Echols, Charles Randall	SATC	Com	• †	Loraine
Eckhart, Harold Crocker		ME	• †	Bloomington
Edds, Verne		Mus sp	• †	Normal
Eddy, Mary Josephine		LAS	• †	Shelbyville
Ederer, Lothar Alfonso		Com	• †	Chicago
Edie, Burl Albert		Law	• †	Monticello
Edie, Willis Ray	SATC	Agr	• †	Monticello
Edmunds, Gordon Robert	SATC	ME	• †	Joliet
Edmondson, Nila Winifred		HEA	• †	Bryant, Ind.
Edson, Robert Elmer	SATC	Com	• †	Harmon

Edwards, Estelle Emma		LAS		• † †	Centralia
Edwards, James Beresford, Jr.	SATC	Com	65	• † †	Grand Rapids, Mich.
Edwards, Lester Crews	SATC	Agr	6½	• † †	Ashland
Edwards, Marshall Henry		AE		• † †	Jerseyville
Edwards, Mrs. Myrtle Sassman		Mus		• †	Chicago
Edwards, Rachael Elizabeth		HELAS		• †	Ashland
Edwards, Robert Chester	SATC	LAS		• † †	Oblong
Edwards, Robert Yarrington	SATC	LawP	15	• † †	Washington, D. C.
Edwards, Sybil		LAS		• † †	Little Rock, Ark.
Edwards, Terry Warren	SATC	ME	65	• † †	Jerseyville
Edwards, William Herbert	SATC	CE	67	• † †	Chicago
Efnor, Fred	SATC	LAS		•	Cuba
Egan, Lillian Elizabeth		HEAgr (SS)	122	•	Quincy
Egan, Mildred Alice		LAS		• † †	Quincy
Egbert, Jean Orisa		Agr	33	• † †	Oak Park
Egbert, Ralph Plumb	SATC	Agr		•	Joliet
Eggeman, Charles Jacob	SATC	Agr		• † †	St. Louis, Mo.
Eggert, Clarence Henry	SATC	Com		•	Elgin
Ehrhardt, Oliver Earl	SATC	MdP	31	• † †	Beardstown
Ehrlich, Julie Davide		Mus		• † †	Urbana
Eich, Walter Benard	SATC	CerE		•	LaSalle
Eichelman, Burr Simmons	SATC	Agr		• † †	Downers Grove
Eichhorn, Sophie		LAS		•	Mound City
Einbecker, William Francis		Chem	107	• † †	Chicago
Eisner, Katherine		Mus	45	• † †	Champaign
Eiszner, Theodore Frank		Com	30	• †	Chicago
Eiszner, William Henry		Com	20	•	Chicago
Eitman, Clarence Vanatta	SATC	LAS		•	Muscatine, Ia.
Elder, Frederick Williams		Agr		• † †	Freeport
Eldredge, Preston McKee		LAS		• † †	Algonquin
Eldridge, Bertram Neil	SATC	Com	29½	•	Lacon
Eldridge, Ferne Edmond		HELAS		• † †	Lacon
Eldridge, Leah Estene		HELAS	65	• † †	Wilmette
Elg, Erich George		REE	78	• † †	Green Bay, Wis.
Ellenberger, Guy Ward <sup>1</sup>	SATC	AE	73	•	Normal
Ellett, Durwood	SATC	EE		•	Danville
Ellickson, Cora Juliann		SS		•	Thompson, Ia.
Ellington, Alvin Matthews		LawP	101	• † †	Buffalo
Elliott, Estes Eugene	SATC <sup>2</sup>	AE		• † †	Kansas City, Mo.
Elliott, Harold Wendell	SNTC	Com		•	Sidell
Elliott, Hugh Wilcox	SATC	Agr		•	Gilman
Elliott, Norton Braden	SATC	Agr		• † †	Chillicothe
Ellis, Charles Lyman, A.B., 1910		AE irr		• † †	Urbana
Ellis, Mrs. Flossie Brownfield		SS		•	Urbana
Ellis, Holbert Wallace	SATC	Chem		• † †	East Moline
Ellis, Olive E		LAS (SS)	102½	• † †	Palmyra, Mo.
Ellis, Raymond Dana	SATC	LAS		• † †	Allamont
Ellman, Samuel Morris		EE	20	• † †	Chicago
Elman, Myer Aaron		EE		• †	Chicago
Elward, James Augustine	SATC	CE		•	Clinton
Elwell, Dan William		Com	89	• †	Champaign
Emch, Arnold Frederick		LAS		• †	Urbana
Emery, Robert Simpson	SATC	Com	67	• † †	Chicago
Emig, Esther Maybelle		LAS		• † †	Columbus, Ind.
Emig, Louis Redecker	SATC	Com		•	Rock Island
Eminger, Mabel		LAS	114½	• † †	Gibson City
Emmerling, Carl James	SATC	MdP		•	Perkin
Emrick, John Jacob	SATC	Com		• † †	Aledo
Ems, William Wallace	SATC	Com		• † †	St. Joseph
Endres, Albert Adam	SATC	Agr		•	Canton
Engber, Harry	SATC	Agr	30	•	Chicago
Engberg, Carl Hjalmar	SATC	ME		•	Rockford
Engelbrecht, Herman Samuel	SATC	Com		• † †	Libertyville
Engelhardt, Henry Adolph	SNTC	Com		• † †	Elkhart, Ind.
Engelhardt, Lora May		HELAS	90	• †	Harvard
Engelland, Edmund Franciscus		EE	109	• † †	Grant Park
Engelland, Mynetta Mary Margaret		HELAS	63	• † †	Grant Park
England, Glenn Lewis		EE	102	• †	Havana
England, Thomas Harold	SNTC	Com		• †	Olney
Engle, Jeannette Morrison, A.B., 1915, A.M., 1916		SS		•	Urbana
Engle, Wilbur Fiske	SATC	Chem		•	Streator
English, Elmer David	SATC	Com		• † †	Dixon
English, George Washington, Jr.		Com		• †	Urbana
Entz, Arthur David	SATC	EE		•	Wichita, Kan.
Epley, John Wesley	SNTC	EE		•	Maunie
Eppinger, Esther Auguste		Com	101	•	Quincy
Eppinger, Marie Anna		SS	57½	•	Quincy
Eppstein, Edwin M	SATC	Com	11	•	Farmer City
Erb, Donald Milton	SATC	Com		• † †	Urbana
Erdman, Herbert Arthur	SATC	LAS		•	Geneseo
Erdmann, Roy Alfred		Com	120	• † †	Geneseo

<sup>1</sup>Deceased.<sup>2</sup>"Enrolled" in the S.A.T.C., but not inducted.

Erickson, Adrian Edson	SS	102	• • •	Arthur, Ia.
Erickson, Erick Gustaf	SATC ME		• • •	Moline
Erickson, Esther Marie	HEAgr	68	• • •	DeKalb
Erickson, John Edward Leonard	SATC ChE	53	• • •	Chicago
Ericsson, Dewey Arthur	SATC AE	30	• • •	Chicago
Ericsson, Hazel Harriett	Jnl	26½	• • •	Chicago
Erikson, Lloyd Ubert	SATC EE		• • •	Joliet
Erlandson, Nels Harold	SATC EE	36½	• • •	Chicago
Ernest, Helen Orpha	SS	121	• • •	Urbana
Ernest, Nellie Edith	LAS	30	• • •	Urbana
Ernest, Ruth, A.B., 1915	SS	136½	• • •	Urbana
Ernst, Leslie Mitchell	SATC Com		• • •	Paxton
Ervin, William John	SATC ChE		• • •	Indianapolis, Ind.
Erzinger, Howard Franklin	SATC Com		• • •	Chicago
Eshleman, Carl Martin	SATC LAS		• • •	Sterling
Eson, Elmo Krehl <sup>1</sup>	SATC CE		• • •	Freeport
Essenpreis, Nora Rose	LAS	30	• • •	Pierron
Esser, Howard Alexander	SATC Com		• • •	Aurora
Esslinger, Esther Lillian	LAS	59	• • •	Rushville
Esslinger, Paul Henry	SATC LAS		• • •	Rushville
Eswein, John Conrad	SS	8	• • •	St. Louis, Mo.
Etherton, Fred Snider	SATC LAS	60	• • •	Carbondale
Etzel, Gastao	Agr (SS)	6	• • •	Sao Paulo, Brazil
Evans, Eugene Allen	SATC EE		• • •	Aurora
Evans, George Gerald	SATC Agr		• • •	Chicago
Evans, Gordon Crittenden	SATC Com		• • •	Riverside
Evans, Henry Herbert	SATC Com		• • •	Aurora
Evans, Hester Philena	LAS		• • •	Villa Grove
Evans, Ira Gordon	SATC Com		• • •	Rossville
Evans, John Harwood	SATC Agr		• • •	Bloomington
Evans, Robert Barclay	SATC Com	54	• • •	Aurora
Evans, Ruth	Mus (SS)	78	• • •	White Hall
Evans, Walter Chew	ME	13	• • •	Chicago
Evered, William Edwin	Chem	46½	• • •	Moccasin, Mont.
Eveland, John Raymond	SATC ChE		• • •	Lincoln
Everett, Philip Harper	MdP	24½	• • •	Norwood, O.
Everhart, Gladys	HELAS (SS)	100	• • •	Champaign
Everly, Lester Emerson	SATC Agr		• • •	Bushnell
Eversole, Harold Baker	SATC LAS	30½	• • •	Hindsboro
Eversole, Lenore Lee	LAS (SS)	½	• • •	Champaign
Eversole, Selma Anna	LAS	8	• • •	Charleston
Ewan, Ruth Elizabeth	HEAgr	122	• • •	Cuba
Ewing, Herbert Nathaniel	SATC Com (SS)	29	• • •	McLean
Eycleshymer, Dorothy Adele	Com	21	• • •	Niles, Mich.
Faber, Leon Adams	SATC EE		• • •	Pawpaw
Fabry, Alex	SATC ChE	36	• • •	Chicago
Fagan, Lynn Clarence	SATC ME		• • •	Mt. Sterling
Fagerburg, Rudolph Edward	SATC ME		• • •	Paxton
Fahnstock, Maurice Kendall	SATC ME		• • •	Edwardsville
Fair, Florence Leone	Mus		• • •	Chrisman
Fair, Sue Mabel, A.B., 1909	LAS sp	12	• • •	Chrisman
Fairchild, Asa Roy	SATC Agr	71	• • •	Danville
Fairchild, John Edward	MdP	33	• • •	West Chicago
Fairfield, Louise Edith	Com	31	• • •	Chicago
Fallon, Vallie Edna	LAS	100	• • •	Urbana
Farasey, William Quinn	SATC Com		• • •	East Cleveland, O.
Farber, Isadore Robert	Com		• • •	Chicago
Farber, Jacob Alex	SATC ChE	72	• • •	Chicago
Parkasch, Hazel	LAS sp		• • •	Anderson, S. C.
Farley, John Edgar	LAS		• • •	Pawnee
Farmer, Ruth Marie	Mus	64	• • •	Bolivar, Mo.
Farr, Allan Charles	SATC ME		• • •	Chicago
Farrell, Arthur Eugene	Com	46	• • •	Fowler
Farris, George Daniel	SATC LAS		• • •	Iuka
Farwell, Frank Tyler	Com	38	• • •	Chicago
Farwell, Lynne Marion	HELAS		• • •	Chicago
Faust, Chester Emanuel	SATC Com		• • •	Charleston
Faust, Rudolph Alfred	Chem	70½	• • •	Washington, D. C.
Fautsch, Emile	SATC Chem	69	• • •	New York, N. Y.
Fay, Douglas Richards	SATC Com (SS)	32	• • •	Urbana
Pearnside, William Dempsey	SATC Agr		• • •	Mounds
Peddersen, Esther Carolyn	LAS	61	• • •	Mt. Olive
Fee, Mrs. Cloyde Smith	SS		• • •	Champaign
Feeney, John Clark	SATC ME		• • •	Joliet
Fegan, David Yeard	SATC MdP		• • •	Spring Valley
Fehrenkamp, Winifred, B.L.S., 1912	LAS irr	79	• • •	Urbana
Fehrman, Edwin	SATC Com	24	• • •	Pekin
Felbeck, George Theodore	SATC ME	97	• • •	Kansas City, Mo.
Feldhake, Otto John <sup>1</sup>	Com	62	• • •	Effingham
Feldkamp, Jennie Caroline	SS Lib sp		• • •	Springfield
Feldman, David Ira	SATC Com		• • •	Chicago
Feldman, Nathan	ME	131	• • •	Chicago

<sup>1</sup> Deceased.

Feldmann, Clement Chase		LawP		† †	Webster Groves, Mo.
Fellows, Musa		LAS	61	* †	Bloomingsdale, Ind.
Felton, August Conrad	SATC	Agr		* †	LaSalle
Fenn, George Prentice	SATC	ME		* † †	Berwyn
Fenton, Paul Edward	SATC	EE		* †	Greenview
Ferra, Harriet Amelia		LAS	39	* † †	Evanston
Ferguson, Randon	SATC	EE		* †	Tuscola
Ferguson, Wilbert Homer		Com	84	* † †	Kansas City, Mo.
Ferns, Thomas Francis, Jr.	SATC	Agr		* †	Springfield
Ferrell, Duane	SATC	Chem	31	* † †	Sullivan
Ferris, Orville Leroy	SNTC	Com		* †	Bradford
Feuer, Milton Abraham	SATC	Chem		* † †	Chicago
Fiedler, Azro Alphonso	SATC	ME		* †	Thomasboro
Fiedler, Joseph Hugh	SATC	ME		*	Thomasboro
Field, Corinne		LAS	61	* †	Chicago
Field, Norman Theodore	SATC <sup>1</sup>	CE		* † †	Chicago
Field, William Alexander, Jr.	SATC <sup>1</sup>	Com		* †	Chicago
Fielder, Birkley Arthur	SATC	Com		*	Moline
Fietz, Erwin Richard	SATC	MdP	37	* † †	Chicago
Rife, Harold Ambrose	SATC	EE		* †	Palestine
Fillmore, Paul David	SATC	LAS		* †	Dows, Ia.
Filut, Frank Felix		Com sp		* † †	Milwaukee, Wis.
Finkelstein, Milton	SATC	Com		*	Chicago
Finley, Albert James	SATC	ME		*	Utica
Finley, James Keith	SATC	MdP		*	Danville
Finnegan, Thomas Joseph		ChE		*	Chicago
Finney, Dorothy		LAS	65	* † †	Westfield
Finney, James Thomas	SATC	LawP	44	*	Champaign
Firebaugh, Raymond Sims	SATC	Agr	67	*	Robinson
Firth, John Elvin		LAS		*	Pinkneyville
Fischbach, Antonia		LAS	102	* † †	Centralia
Fischer, Mary Catharine		SS	55½	*	Elmhurst
Fischer, Mary Louise		HEAgr	97	* †	Addison
Fish, Vivian Mary		LAS (SS)	72	* †	Benton
Fisher, Glendon Arthur	SNTC	EE		*	Chicago
Fisher, Glenn Everett	SATC	EE		*	Walnut
Fisher, Noland Henry	SATC	ME		*	Olney
Fisher, Richard Stoner		MdP		* † †	Champaign
Fisher, Mrs. Victoria Thomen		LAS	4	* † †	Greenup
Fisher, William Albert, Jr.		Agr		* †	St. Louis, Mo.
Fishman, Maurice	SATC	MdP		*	Springfield
Fitch, M. rran Lewis	SATC	LAS	33	* † †	Peebles, O.
Fitterer, Dwight Wesley	SATC	Com		* † †	Terre Haute, Ind.
Fittro, Lynn Selby	SATC	CE		*	Chicago
Fitzner, Marion Lucille		LAS	108	* † †	Bethlere
Fitz Hugh, Greene Smith		LAS (SS)	71	* †	Spottsville, Ky.
Fitzpatrick, Clarence Clay	SATC	LAS		*	Barry
Fitzpatrick, Dorothy Charlotte		LAS	10	* † †	Chicago
Fitzpatrick, Karion Edward	SATC	Com		*	Blue Island
Fitzpatrick, Margaret Marion		LAS	110½	* †	Chicago
Flack, Howard Romayne	SATC	Com		*	Cairo
Flagg, Nettie Estelle		SS	5½	*	Rantoul
Flaherty, Jerome Kendall		Com	8	* †	Hubbard Woods
Flanigan, John Andrew	SATC	Com		* †	Champaign
Flannery, Bert Vaughn	SATC	Arch		*	Harvey
Flatt, Nelle B		LAS	101	* † †	Champaign
Fleishman, George Samuel	SATC	CE	110	* † †	Chicago
Fleming, Arthur Isaac	SATC	AE	28	* † †	Chicago
Fleming, Ellen Milton		HELAS	68	* † †	Olney
Fleming, Geneva		Arch		* †	Champaign
Fleming, Joseph Dean	SATC	Com		* †	Chicago
Fleming, Oscar Jonathan, Jr.	SATC	ME	72	* † †	Berwyn
Fleming, Rex		Com		*	Williamsport, Ind.
Flesh, Orin		RCE	33½	*	Marine
Flesher, Clare Edward	SATC	LawP		* † †	Taylorville
Fletcher, Ralph Emerson	SATC	Com	32	* † †	Morris
Fletcher, Robert Harry	SATC	LawP	34	* † †	Morris
Floreth, William Huntington	SATC	Com	41	* † †	Jacksonville
Flostrom, Victor August	SATC	Com		* †	Morrison
Fluke, Autha Maybelle		SS	131	*	Chicago
Foerster, Alfred Carl		LAS	8	* †	Kankakee
Foerster, Matthew Paul	SATC	CE		*	Petersburg
Fogarty, Catherine Isabel		SS	4½	*	Springfield
Fogel, Herman Edward	SNTC	EE		*	Churubusco, Ind.
Fogelson, Robert		ChE	93	* † †	Chicago
Fogelsonger, Elmor Lloyd		Jnl		* †	Indianapolis, Ind.
Fogelsonger, Ernest Stanley		Law		* †	Indianapolis, Ind.
Fogler, Mayor Farthing		SS	138	*	Champaign
Fogler, Ralph Waldo	SATC	ChE		* † †	Champaign
Foley, John Harold	SATC	ChE		* † †	Joliet
Polk, Mildred Lauretta		LAS	44	* †	North Liberty, Ind
Follett, Walter Forrester	SATC	ChE		*	Harvey

<sup>1</sup>"Enrolled" in the S.A.T.C., but not inducted.

Foltz, Hermann	SNTC	EE	•	Decatur
Fonseca, David		CE	•	Guadalajara Jalisco, Mexico
Fonseca, Manuel		Agr	46	• † † Caliao, Peru
Foran, Arthur Frederick	SATC	Com	•	• † † Mt. Vernon
Ford, Lee Harold	SATC	Agr	•	• † † Greenfield
Ford, Newell Albert		ME	23	• † † Western Springs
Ford, William Kenneth	SATC	LAS	4	• † † Western Springs
Fordyce, Allmon Grant	SATC	AE	•	• † † Kansas City, Mo.
Forker, Frances Adaline		HELAS	•	• † † Urbana
Fornoff, Charles Wright	SATC	LAS	•	• † † Pana
Forster, Mrs. Mary Ballard		HEAgr (SS)	44½	• † † Berwyn
Forte, Chauncey Owen	SATC	ME	•	• † † Palestine
Portl, Stella Josephine		Mus	•	• † † Oak Park
Portney, Bonnie Pearl		SS	68	• † † Casey
Poss, Le Roy Merrill	SATC	Agr	54	• † † Freeport
Poster, Admiral George Dewey		Agr	•	• † † Armstrong
Poster, Edward Mern	SATC	Com	•	• † † Perrysville, Ind.
Poster, Elliott Eugene	SATC	LAS	11	• † † Chicago
Poster, Grace Marion		LAS	•	• † † Champaien
Poster, Rhoda Wilda		LAS	31	• † † Tipton, Ind.
Potre, Vincent Valentine		Com sp	•	• † † Chicago
Pouche, Carrie Mae		LAS (SS)	6	• † † Champaign
Poudray, Walter Ray	SATC	Com	28½	• † † Blackwell, Okla.
Powler, August Lincoln		LawP	•	• † † Marion
Powler, Frances Cleveland		LAS	96	• † † Marion
Powler, Howard Haskell		CE	•	• † † Kearney, Neb.
Powler, Lottie Viola		LAS (SS)	48	• † † Centralia
Fox, Austin		Com	66	• † † Oak Park
Fox, Chester Philip	SATC	MdP	•	• † † Chicago
Fox, Russell John	SATC	EE	•	• † † Sterling
Fox, Schubert Davis	SATC	LAS	•	• † † Centralia
Foyt, William Le Verne	SATC	ChE	•	• † † Galena
Fraley, Chester Franklin	SNTC	EE	•	• † † Hoopston
Frame, Herbert Wayne	SATC	ME	•	• † † Hillsboro
Francia, Jose Nieto		Com (SS)	32	• † † Bulacan, P. I.
Frank, Seymour Jerome	SATC	CE	•	• † † Chicago
Frankenberg, Earl Alfred	SATC	ME	•	• † † Rockford
Franks, Arthur John	SATC	ChE	89	• † † Springfield
Frantz, Helen Louise		HELAS	•	• † † La Fayette, Ind.
Fraser, Gladys Geneva		LAS	67	• † † Champaign
Fraser, Irma Maydalene		LAS	89	• † † Bloomington
Fraser, Robert Samuel	SATC	Com	•	• † † Joliet
Frazec, Lillian Mildred		LAS	18	• † † Moweaqua
Frazier, Gladys Lucile		LAS	•	• † † Chicago
Frazier, Dorothy Caroline		HEAgr	69	• † † Yorkville
Frazier, Mary Elizabeth		LAS	39	• † † Georgetown
Fread, Howard Alvin	SATC	LAS	•	• † † Morris
Frede, Glenn William		Com	99	• † † Stewardson
Frederick, Neil John	SATC	Chem	•	• † † Kansas City, Mo.
Frederick, Victoria		LAS	65	• † † Trenton, N. J.
Frederickson, John Brownlee	SATC	LAS	•	• † † Oklahoma City, Okla.
Frederking, George Henry	SATC	Com	•	• † † Sibley
Freedlund, Frederick Oliver	SATC	CE	•	• † † Batavia
Freeland, Le Roy Muriel	SATC	LAS	•	• † † Moline
Freeman, Harry Duke	SATC	Agr	31	• † † St. Louis, Mo.
Freeman, Helen Busey		LAS	59	• † † Urbana
Freese, Walter William	SATC	ME	•	• † † Chicago Heights
Freeto, Clarence Edwin		Agr	66	• † † Glen Ellyn
Freistat, Herbert Leinhardt	SATC	Chem	•	• † † Rock Island
Frensdorff, Charles August		LAS	•	• † † Urbana
Frey, John Charles		Com	•	• † † Evansville, Ind.
Frey, Joseph Richard		Com (SS)	111½	• † † Bloomington
Frey, Leo Alfonso	SATC	Com	•	• † † Paris
Friebel, Carl Gustav	SATC	AE	36	• † † Cedar Rapids, Ia.
Friedman, Arnold Dorsey	SATC	Jnl	•	• † † Little Rock, Ark.
Friedman, Dave Baer	SATC	Com	•	• † † Murphysboro
Friedmann, Arnold Maurice	SNTC	CE	31½	• † † Chicago
Friedrich, Edgar John	SNTC	EE	35	• † † St. Charles, Mo.
Friedrichs, John Edwin		ME	•	• † † St. Louis, Mo.
Frier, Pauline Chapman		LAS	34	• † † Benton
Frier, Pearl Elizabeth		LAS	•	• † † Benton
Fries, Harold Fredric	SATC	Agr	•	• † † Tyner, Ind.
Frisbee, Virginia Dee		LAS	60	• † † Bushnell
Frith, Majorie Francis		HEAgr	•	• † † Kankakee
Fritts, James Edwin	SATC	Chem	•	• † † Shelbyville
Fritts, Ralph J	SATC	Jnl	•	• † † Shelbyville
Froberg, Gerald Alfred	SATC	CE	•	• † † Chicago
Froehde, Wilhelmina		HELAS	52	• † † Chicago
Frohock, Millard Maurice	SATC	Com	•	• † † St. Louis, Mo.
Frommann, Mildred		LAS	111	• † † Chicago
Frommann, Theodore Emil	SNTC	Agr	28	• † † Chicago
Frost, Troy Frank	SATC	ME	•	• † † Waterman

† "Enrolled" in the S.A.T.C., but not inducted.



Fruland, Ruth Myrtle	LAS	41	†	Sheridan
Fry, Grace Bernadine	HELAS		†	Watseka
Fuentes, Jose Fortunato	ME	39	†	Hilo, P. I.
Fulks, Nora M	LAS		†	Bradford
Fuller, Agnes	LAS	60	†	Oxford, Ind.
Fuller, Florence Stormfeltz	HELAS	82	†	Princeton, Mo.
Fuller, Lorene Jeania	Agr		†	Princeton, Mo.
Fuller, Mary Robitine	HELAS		†	Ludlow
Fuller, Terryl Pred	SATC LAS			Carmi
Fulton, George Leonard	Com		†	Hartford City, Ind.
Fulton, Gladys De Vere	LAS		†	La Grange
Fulton, Joseph Hawkins	MdP		†	Carbondale
Fulton, Marjorie	Mus		†	Fairbury
Fulton, Robert Edward	SATC Com			Caseyville
Fulton, Robert Elliott, Jr.	Com	95½	†	Dixon
Fulton, William Jewett, Jr.	SATC Chem	106	†	Keokuk, Ia.
Fulton, Zelda Helene	LAS		†	La Grange
Fultz, Dorothy Steen	HELAS	65	†	Bushnell
Fung, Wai Sun	Com	24	†	Manila, P. I.
Funk, Carl Raymond	SNTC CE			Flat Rock
Funk, Eugene Duncan, Jr.	SATC Agr		†	Shirley
Funk, Irwin Milton	SATC Com	31	†	Kernan
Funk, La Payette, Jr.	SNTC Agr	15	†	Shirley
Funk, Raymond Rufus	Com			Winchester
Fuqua, Clarence Nathan	SATC EE		†	Bethany
Furr, Kenneth Cecil	Com	16½	†	Genoa
Furrer, Emery Cloyd	CE	107	†	Easton
Furst, Mildred	LAS	96	†	Adair, Ia.
Furst, Norine	LAS	96	†	Adair, Ia.
Gaarder, Reidar Bastian	Agr (SS)	72	†	Kristiansia, Norway
Gaboriault, Aloysius Lawrence	SATC Com			Blue Island
Gaffen, Woolfe	SATC CHE			Chicago
Gage, Helen Louise	HELAS	99	†	Chicago
Gage, Mary Edna	SS	5		Elgin
Gage, Mildred	LAS	61	†	Oak Park
Gage, Mrs. Ruth Green	SS	4		Bloomington
Gailey, Elmore Lee	SNTC LAS		†	Ashland
Gain, James Alva <sup>1</sup>	SATC Agr			Astoria
Gaiser, Elsie Lorene	HELAS	58	†	Charleston
Galbreath, Lemoine Elmer	SATC ME			Pana
Gale, Charles Emerson	Agr sp		†	Evansion
Gale, Edwin Oscar	Chem	8		Oak Park
Gall, Clarence Kent	SATC LAS			Murphysboro
Gallion, Agnes Mae	HELAS	14	†	Indianapolis, Ind.
Galloway, Herbert James	SATC Com	19	†	Indianapolis, Ind.
Gammie, George	SATC Com			Chicago
Gammill, Lawrence Wilson	SATC ME			Gays
Gandhekar, Seturam Sadasiv	Chem	88	†	Mayavaram, India
Gannaway, Elsie Gertrude	SS	1		Mattoon
Gannon, Thomas Austin	SATC Agr			Peru
Gansbergen, Richard Henry	SATC Com		†	Chicago
Gant, Virgil Arnett	LAS	31½	†	Lebanon
Gantz, Grace Dorothy	LAS	78	†	Normal
Gantz, John Floyd	CE			Elgin
Gantz, Mark Hopkins	SATC MdP			Terre Haute
Gardiner, Robert Parker	SATC ChE	67	†	Chicago
Gardner, Edward Ross	Agr	13	†	Marengo
Gardner, Homer Frank	SATC EE		†	East St. Louis
Gardner, Junius Raymond	SNTC CE		†	Urbana
Garlough, Melvin Nave	SATC AE	73	†	Normal
Garman, Eliza Bonita	Com	31	†	Urbana
Garman, Horace Bryan	LowP	103½	†	Urbana
Garman, Ray Lin	Agr	73½	†	Bethany
Garner, Aaron Paul	SATC Agr			Salem
Garrett, Clifford Dewey	SATC EE		†	Mt. Carmel
Garrett, James Howard	EE (SS)	55½	†	Adamston, W. Va.
Garrett, Sherman Scott	SATC MdP (SS)	40	†	Champaign
Garrison, George Harry	SATC MdP	55	†	Urbana
Garrison, Mark Anthony	SATC MdP			Rushville
Garrison, Ross Allen	SATC EE			Mt. Vernon, Mo.
Garrity, Edward Daniel	SATC EE		†	Wheaton
Garskov, Jacob Solomon	SATC MdP	34	†	Chicago
Garvey, Benjamin St. John	SATC ChE	34	†	Chicago
Gasaway, Alice Elizabeth	LAS	64	†	Normal
Gast, Walter Ferdinand	SNTC Com	71½	†	St. Louis, Mo.
Gaster, Helen Louise	LAS	23	†	Princetonville
Gates, Cecil Elmer	SATC Agr		†	Tuscola
Gates, Harold Chappell	SATC Com		†	Yorkville
Gates, Willred Miller	SATC Com		†	Alton
Gauble, Cassie Fern	SS	7½		Morrisonville
Gauble, Clifford Franklin	SATC Com			Morrisonville
Gaumer, Clay Freeman, Jr.	SATC ME			Alton

<sup>1</sup> Deceased.

Gaumer, Forrest Jones	SATC	Chem	•	Paris
Gaumer, George Washington	SATC	ME	•	Alvin
Gauss, Pauline		LAS	102	• • † † Peoria
Gawthrop, Eunice		Com	30	• † † Kendallville, Ind.
Gay, Sara Lettie		HELAS		• † † Rockport
Gayler, Elsey Jordan		LAS	33½	• † † Monmouth
Gayle, Virginia Gordon		HELAS	32	• † † St. Louis, Mo.
Gaylord, Francis Moses <sup>1</sup>	SATC	Com	98	• † † South Hadley, Mass.
Gaynor, Elizabeth Webb, A.B., 1907		SS		• † † Grand Rapids, Wis.
Gedman, Daniel Quincy	SATC	LAS		• Cicero
Geer, Eugene Hoffman	SATC	LAS		• Browning
Gellbach, Wiltur August	SNTC	Jnl	67	• † † Lincoln
Geiger, Mary Bernice		LAS	96½	• † † Baileyville
Geiger, Walter Jacob		EE	107	• † † Mt. Carmel
Geiler, Franklin Herman		LAS	131	• † † Mansfield
Geip, Hazel Marie		SS	4	• † † Champaign
Geip, Lula Maud		SS	9½	• † † Champaign
Geiss, Fred Frank	SATC	LawP		• † † Harvey
Geiss, Marie Gertrude		HELAS	61	• † † Harvey
Gelb, Emmanuel	SATC	Arch		• † † Chicago
Gellert, John Hansen	SATC	Com	23½	• † † Chicago
Genung, Arthur Lawrence		LAS	35	• † † Chicago
Georg, Raymond Henry	SATC	Jnl		• † † Springfield
George, Homer Amos		ChE	19	• † † Champaign
George, Victor Philip	SATC	Com		• † † Evansville, Ind.
Gerlach, Miriam, A.B., 1911		SS		• † † Chester
Gibbon, Karl Malcolm	SNTC	Com		• † † Sullivan
Gibbs, Wayne Fulton	SNTC	Com		• † † Jacksonville
Gibgot, Samuel Abraham	SNTC	ME		• † † New York, N. Y.
Gibson, Dorothy Louise		LAS	63	• † † Chicago
Gibson, James Dick	SATC	Com	40	• † † Muskogee, Okla.
Gibson, John McClure	SATC	Agr	15	• † † Elizabethtown
Gibson, John Thomas	SATC	Com		• † † Muskogee, Okla.
Gibson, Leslie Reed		Com		• † † Galena
Gibson, Mary Lucile		HELAS		• † † Urbana
Gibson, Samuel Kendall		Agr	8	• † † Kirkwood
Giehler, August Albert	SATC	LAS		• † † Ottawa
Gierich, Howard Robert	SATC	ME		• † † Joliet
Giesen, John William	SATC	Com		• † † Hamilton
Gilbert, George Gale, Jr.	SATC	LawP	6	• † † Mt. Vernon
Gilbert, Helen Gale		LAS		• † † Mt. Vernon
Gilbert, Ivan	SATC	MdP		• † † Oak Park
Giles, William Frederick, Jr.	SATC	EE	27	• † † Brookfield, Mo.
Gille, Harry Edward	SNTC	ME		• Quincy
Gillen, Mildred Jenet		HELAS		• † † Berwyn
Gillenwater, Inez Applene		LAS		• † † Quincy
Gillespie, Evangeline Jeanette		LAS (SS)	102	• † † Harris
Gillespie, Mary Madge		HEAgr	26	• † † Harris
Gillette, Earle Franklin	SATC	Com		• † † Lebanon, Ind.
Gillette, William Henry	SATC	Com	2	• † † Urbana
Gillis, Margaret Church, A.B., 1910		Lib		• † † Ogdensburg, N. Y.
Gilmore, Philip Lawrence		Com (SS)	102½	• † † Omaha, Neb.
Gilson, Robert Hiram		LawP		• † † Blue Island
Gilson, Ruth Catherine		SS Lib sp		• † † Blue Island
Gilson, Samuel Reed	SATC	CE	64	• † † Galena
Gimbel, Arthur Adolph	SATC	Com		• † † Lincoln
Gimre, Gerald Snyder		Agr	60½	• † † Marshalltown, Ia.
Ginalski, Frank Edward		EE	38	• † † Chicago
Gindorff, Matthew William		ChE	64	• † † Chicago
Ginger, Kelly William	SATC	ME		• † † Herrick
Ginnaven, Mary Lucy		Com		• † † Springfield
Ginnings, Paul Meade	SATC	Chem (SS)	111	• † † Macomb
Ginsburg, Roderick Aldric		MdP	31½	• † † Chicago
Gish, Owen Ellyson		RME	110	• † † Topeka, Kan.
Glanzner, Alma Zella		HELAS	79	• † † Lebanon
Glaser, Abraham Lewis	SATC	Agr		• † † Chicago
Glassman, Lazaar Mitchell	SATC	ME		• † † Chicago
Glassman, Leo	SATC	ChE	28	• † † Chicago
Gleich, Joseph Theodore		ChE	4	• † † Webster Groves, Mo.
Glenn, Dwight Clendenin	SATC	Agr	28	• † † Sparta
Glenn, Harold Martin		LAS	28	• † † Urbana
Glidden, Carter Ames		ME		• † † DeKalb
Gliffe, Ethel Florence		SS	131	• † † Chicago
Glos, Donald Frederick		ME		• † † Wayne
Glovietty, Thomas Edward	SATC	EE		• † † DuQuoin
Goble, Emerson Lloyd		EE		• † † Elgin
Goble, Ivan Bean	SATC	Com	61½	• † † Charleston
Godbold, Edwin Dibrell	SATC	EE		• † † Moline
Goddard, Myron Chester		Com	20½	• † † Monmouth
Godwin, Marion Gunder		Agr	19	• † † Decatur
Goebel, Anne Vreeland		LAS	64	• † † Urbana
Goebel, Russell Walter	SATC	MdP		• † † Sreator

<sup>1</sup> Deceased.

Goebel, Walther Frederick		LAS	67	† †	Urbana
Goers, Barney Christian	SNTC	ME		•	Altamont
Goff, Carl Henry	SATC	Com		•	Tuscola
Goff, Charles Weer		MdP	55	† †	Rock Island
Going, Judson Freeman		LAS	32½	† †	Chicago
Golb, Samuel Henry	SATC	CE	34½	• †	Chicago
Goldberg, Albin Gilbert	SATC	Com		•	Joliet
Goldberg, Max Frederick		LawP	34	• † †	Danville
Goldblatt, Isabel Blossom		LAS		•	Chicago
Golden, Annina Magdelene		SS Lib sp		•	Chicago
Golder, Harold Morris	SNTC	Agr		• † †	Rock Falls
Golder, Hugh Edward	SNTC	Agr		• † †	Rock Falls
Golder, Lloyd William, Jr.	SNTC	EE	35	• † †	Oak Park
Goldman, Irving Daniel		Com	10	• † †	Chicago
Goldman, Sam		Com		• † †	Elgin
Goldsmith, Max	SATC	MdP		•	Whiting, Ind.
Goldstein, Herman Alfred	SATC	ChE	103	• † †	Chicago
Goldstone, Hiram Howard	SNTC	ChE		•	Chicago
Goldstone, Samuel	SATC	MinE	52	• † †	Chicago
Goleman, Irving Isadore	SATC	CE		•	Chicago
Golightly, Dewey William	SATC	Com		•	Pawnee
Gollagher, Annie Hope		Arch		† †	Veedersburg, Ind.
Gomez, Alfonso Arzapalo		ME	65	• † †	Mexico City, Mex.
Gooch, Wilbur Ira		LAS	115	•	Brookings, S. D.
Good, Allan James		ME		•	Kewanee
Good, Merton McKinley		Com	34	• † †	Shepherdstown, W. Va.
Good, Milton	SATC	EE		•	Ephrata, Pa.
Goodall, Mary Adella		SS Lib sp		•	Marion
Goodcell, Mrs. Elsie Hook		Mus sp		†	Urbana
Goodell, Hubert Ellis	SATC	AE		• † †	Beardstown
Goodell, Warren Franklin		LAS		†	Loda
Goodin, Franc Russell	SATC	CE		•	Canton
Gooding, Charles David	SATC	Agr		•	Milford
Goodknecht, Earle Frederic	SATC	ME		•	Kankakee
Goodman, George Phineas <sup>1</sup>	SATC	Agr	61½	•	Mason City, Ia.
Goodman, Miriam Adele		LAS		• † †	Cairo
Goodman, Walter Ferdinand		Com		•	LaSalle
Goodmann, Beatrice		HELAS	99	• † †	Champaign
Goodpaster, Chester Taylor	SATC	LAS		•	Mt. Pulaski
Goodpasture, Gladys Marie		LAS (SS)	167	• † †	Urbana
Goodrich, Mona Montague		SS Lib sp		•	Harrisburg
Goodwill, Floyd Ormund		Com	31	• † †	Pecatonica
Goodyear, Grace Lucille		HELAS		• † †	Morton
Gordon, Clifford	SATC	ChE		•	Chicago
Gordon, Eugene Cassius	SATC	LAS		•	Charleston
Gordon, Frank Allyn		LAS	63	† †	Urbana
Gordon, Harold William	SATC	CE		•	Lake Forest
Gordon, Hazel Augusta		LAS	42	• † †	Urbana
Gordon, James Willard	SATC	Jnl		•	Mahomet
Gordon, Mrs. Kathrine Wallace		SS		•	Pawnee, Neb.
Gordon, Marie Antoinette		HELAS	58	• † †	Urbana
Gordon, Maurice Sigmund	SATC	Com	36	• † †	Chicago
Gordon, Merl Judy	SATC	ME		•	Lawrenceville
Gordon, Russell Lowell		ME (SS)	37½	• † †	Urbana
Gordon, Wendell Holmes	SATC	LAS	12	• † †	Urbana
Gordy, Nelson Stewart	SATC	Arch		• † †	Champaign
Gore, Harmon Carroll	SATC	Agr	39½	•	Morris
Gorey, Jessie Veronica		SS		•	Springfield
Gorham, Wilbor Clark		MdP	4	• † †	Fort Wayne, Ind.
Gorman, John Anthony	SATC	Com		•	Springfield
Gossard, Helen Ray		LAS	61	•	Kansas City, Mo.
Gossett, Lorn Mathias	SNTC	ME	36	• † †	Casey
Gossett, William Porter		LAS	27	•	Norris City
Gott, Howard West	SATC	EE		•	Dale
Gottheimer, Harry, B.S., 1915		SS		•	New York, N. Y.
Gottschalk, Arthur Hubert	SATC	LAS	111	• †	Springfield
Gottschalk, Chester Bisele	SATC <sup>2</sup>	ME		• † †	Chicago
Gould, Marion Jennings	SATC	Com		• † †	Yates City
Gould, Philip Newhall		LAS	100	• † †	Evanson
Gould, Samuel Jules		ChE	75	• † †	Chicago
Gouveia, Uriel Daniel	SNTC	ChE		•	Jacksonville
Gower, Lawrence Eben	SATC	Agr	33	• † †	Odell
Graden, Emet Earl	SATC	Agr	33	• † †	Nokomis
Grady, Paul	SNTC	Com		• † †	Marion
Graebe, William Frederick	SATC	ChE		•	East St. Louis
Graft, Sam Joseph	SATC	ME	53	•	Chicago
Graham, Florence		LAS	74	•	Chicago
Graham, Harold Haynes	SATC	LawP	20½	• † †	Canton
Graham, Richard Michaels	SATC	Com		•	Canton
Graham, Robert Garner		LAS		• †	Monmouth
Graicunas, Algirdas Andrew		Agr		† †	Chicago

<sup>1</sup> Deceased.<sup>2</sup> "Enrolled" in the S.A.T.C., but not inducted.

Grainger, William Wallace	EE	109	• †	Chicago
Grandey, William Warren	ME	4	•	Edgerton, O.
Grando, Arthur	LAS		•	Spring Valley
Granert, Howard	SATC Agr	6	• †	Chicago
Grange, Orville Nelson	SATC EE		•	Tiskilwa
Grant, Glenard Joseph Henry	SATC EE		• †	Harrisburg
Grant, Orin Bradford	SATC ChE		• †	Chicago Heights
Grant, Sophia Jane	Lib sp		• †	Charleston
Gravenhorst, John Albert	SATC EE		•	Effingham
Graves, Claude Allen	SATC LAS		•	Oxford, Ind.
Graves, Harry David	SATC LAS		•	Bushnell
Gray, Earl Kenneth	SATC Com		• †	Joliet
Gray, Leonard O'Connell	SATC ME		•	Lawrenceville
Gray, Miles	Law		• †	Petersburg
Gray, Muriel	LAS		• †	Champaign
Gray, Opal Marie	Com		• †	Rantoul
Gray, Ray George	SATC Agr		•	Coatsburg
Gray, Rena Elizabeth	HELAS		• †	Maroa
Gray, Sidney Jay	SATC Agr	48	•	Princeton
Gray, Walter Philip	SATC Com		•	Maywood
Gray, William Henry	SATC Com		•	Weldon
Graydon, William Dewey	SATC EE	35	• †	Chicago
Green, Albert Pennington	SATC Agr	6	• †	Chicago
Green, Charles Lee	SATC EE		•	Onarga
Green, Freeman John Lyle	SATC Agr		• †	Morrison
Green, Herschel Samuel	SATC LAS	49½	• †	West York
Green, John Russell	SATC CE		• †	Chicago
Green, Robert Marion <sup>1</sup>	SATC Agr	48	•	Chicago
Greene, Harold Nathaniel	SATC Agr	20	• †	Champaign
Greene, Ivan Bayley	SATC Com		• †	Ridgeway
Greene, Mrs. James Henry	Mus	193	• †	Urbana
Greene, Josephine Dorothy	LAS	94½	• †	Chicago
Greene, Ruth McKinley	LAS		• †	Champaign
Greener, Ariel John	SATC ME		• †	Chicago
Greener, Dwight Louis	SATC LAS		• †	Streator
Greenhalgh, Amy Elizabeth	LAS	47	•	Hillsboro
Greenman, Paul Revere	SATC ME		• †	Champaign
Greenman, Ruth Ann Maria	LAS	59	• †	Champaign
Greenspun, James Morris	Com	72	• †	Fort Worth, Tex.
Greer, Donald Malcolm	LAS (SS)	100	• †	Denver, Ind.
Greer, Velma Loys	SS	12½	•	Urbana
Gregg, Donald Robert	SATC EE		•	Marion, Ind.
Gregory, John Milton	LAS	100	• †	Kansas City, Mo.
Greist, Raymond Lewis	ME	53½	• †	Chicago
Grenleski, Steve Edward	SATC Agr		•	LaSalle
Gresens, Harold John	SATC ME		•	West Chicago
Gresens, Otto	SATC CE	37	• †	West Chicago
Gresso, Gordon Emery	SATC Com		•	North Manchester, Ind.
Gridley, Frederick Russell	SATC CE	73	• †	Amboy
Griesser, William Carl	ChE	2½	• †	St. Louis, Mo.
Griffith, Andrus Oliver	LAS	33	• †	Ashton
Griffith, John William	SATC LAS		• †	Champaign
Griffith, Mrs. Louise Coleman	LAS (SS)	56	• †	Champaign
Griffith, Mabel Francis	LAS sp	17	• †	Urbana
Griffith, Maud Marjorie	LAS	96	• †	Ashton
Griffith, Wendell Crabtree	SATC Com	59	• †	Dundee
Griffiths, Grace Mabel	LAS	60	• †	Colusa
Griggs, Marshall Clyde	Com	76	• †	Metamora
Griggsby, Melborn Redmond	SS	38½	•	Petersburg, Ind.
Grimes, Harry La Motte	SATC Jnl		•	East St. Louis
Grimm, Gretchen	SS	6	•	Urbana
Grimm, Horace Francis	SATC Com	33½	• †	St. Louis, Mo.
Grimm, Thomas Carlyle	SATC LAS	70	• †	St. Louis, Mo.
Grimwood, Maurice Henry	Agr		•	Plano
Griner, Pauline Elizabeth	LAS		•	Dubuque, Ia.
Grinnell, Francis Newell	SATC Agr		• †	Bourbonnais
Groat, Arlo Ganson	SATC Com		•	Lewistown
Grobengieser, Robert Arthur	SATC Chem		• †	Allamont
Groeger, Roscoe Charles	SATC EE		• †	Chicago
Groesche, Alfred George	Agr (SS)	102	• †	Matteson
Gross, Bernard Karl	SATC CE		•	Peoria
Gross, Dorothy Lillian	HELAS	84	•	Carlyle
Gross, Max Alexander	SATC ME		•	Harvey
Gross, Raymond Edward	SATC CE	33	• †	Beardstown
Gross, Thusenelda Celestia	SS	5	•	Urbana
Grossman, Homer Silas	SATC Com		• †	Chicago
Grossman, Mrs. Lelia Watson, A.B., 1916	LAS irr	130	•	Champaign
Grossman, Sidney Warren	ME		•	Chicago
Grote, Waldorf William	SATC ME		• †	Wheaton
Grotefeld, Harold Leesman	SATC ME	35	• †	Chicago
Groth, Harvey Charles	SATC RCE	76	• †	Colorado Springs, Colo.
Grounds, Preston Whitfield	SATC Com	36	•	Chicago

<sup>1</sup> Deceased.

Grover, Donald Dana	AE	94	• † †	Rockford
Groves, Charles Harold	Com	61	• † †	Champaign
Groves, Lee Leslie	EE		•	Loraine
Grow, Harold Asa	Chem		•	Kewanee
Grumbine, Evalyn Eva	LAS		• †	Chicago
Grundish, Clarence Hubert	LAS		•	Casper, Wyo.
Grylich, Rica	LAS		• † †	Champaign
Guardia, Ernesto Jaen	Arch	67	• †	Chicago
Guenther, Louis Henry Edward	ME	53	• †	LaSalle
Guha, Monnida Chanda	SS	108	• †	Chittagang, E. India
Guiet, Rene	LAS sp		•	Reimes, France
Guimaraes, Archiryedes Pereira	LAS sp		•	Sao Paulo, Brazil
Gulbransen, Capron Richardson	ME		•	Ottawa
Gulick, Charles Ward	ME	36	•	Champaign
Gulick, Edward Everett, B.L., 1892	Agr irr	4½	• † †	San Antonio, Tex.
Gumm, Clarence William	Com		•	Paris
Gumm, Minnie Carol	LAS	58	• †	Marseilles
Gumz, Frederic William	ME		•	Aurora
Gunkel, Mrs. Fern Shapland	HELAS	95	• † †	Saxnemin
Gunn, Donald Cushman	CE		•	Marion
Gunning, James Thomas	Com	18	• †	Champaign
Gunning, Nadine Elsie	LAS (SS)	99½	• † †	Wilmington
Gunning, Tress Kathleen	LAS	19	• †	Champaign
Gunther, Regina Louise	LAS	65	• †	Owensboro, Ky.
Guntton, George Edwin	ChE	8	• †	Simcoe, Ontario, Can.
Gupte, Shantaram Shankar	LAS sp	24½	• †	Bombay, India
Gurda, Francis Stanislaus Roman	AE	85	• †	Milwaukee, Wis.
Gurtler, William August	CE		•	Chicago
Gustafson, Edna Myrtle Madeline	Chem	46	• † †	Joliet
Gustafson, Frank Leonard	Com		•	Sycamore
Gustafson, Herman	ME	53	•	Ogema, Wis.
Gustavson, Reuben Gilbert	SS	7	•	Denver, Colo.
Gutfreund, Norman Leo	ChE		• †	St. Louis, Mo.
Guthrie, Donald John	ME		•	Robinson
Gwinn, Andrew Burkley	LAS	40	• †	Arzola
Gyllerk, Elmer August	Arch		•	Elgin
Haag, Ivan Lyle	Chem	31	• † †	Mazon
Haase, Paul Ferdinand	Com	8	• † †	Oak Park
Hacker, Olinda Anna	SS	8	•	Marissa
Hackett, Robert Phillip	Com		• †	Rochelle
Hackman, Eldon Duffy	Com	10	• †	Havana
Hackman, Hazel Marie	LAS	31	•	Staunton
Hackney, Joseph Dryden	Com	61	•	Carthage, Mo.
Hadden, Stanley Bear, B.S., 1914	SS	160½	•	Penfield
Hadelman, Louis	CE	94	• † †	Waukegan
Hadley, William Albert	Com		•	Ridge Farm
Hagan, Bernard Anthony	ME	67	•	Champaign
Hagan, Helen Lucile	LAS	33	• †	Champaign
Hage, Lester Herman	Com		•	Hinckley
Hagener, Charles	ME		• †	Beardstown
Hager, Floyd David	Chem		• †	Cedar Rapids, Ia.
Hager, Ralph Johnston	ME		• †	St. Louis, Mo.
Hague, Edith Elizabeth, A.B., 1910, B.L.S., 1913	SS			Urbana
Hague, Stella, A.B., 1893, A.M., 1905, Ph.D., 1912	SS			Urbana
Hahn, Alta Ruth	Jnl		• † †	Springfield
Hanne, William Fred	Com		• †	Chicago
Haig, Augusta Pauline	SS	16	•	Caseyville
Hains, John Robert	ME		•	Kewanee
Haines, Ira Rollin	CE		•	Rock Island
Hainsfurther, Albert, Jr.	Com		•	Winchester
Haldeman, Virgil Kenneth	EE	35	•	Ponca City, Okla.
Hale, Cedric	ChE	66	• †	Chicago
Hale, George Theodore	CE	18	•	East Syracuse, N. Y.
Haley, Roy Burton	Agr		•	Lockport
Hall, Cecil James	Com	80	•	Indianapolis, Ind.
Hall, Charles Proctor	ChE	29	• †	Kansas City, Mo.
Hall, Harold Charles	EE		•	Carlinville
Hall, Harold Putnam	CE		•	Chicago
Hall, Helen Florence	LAS		• †	Belvidere
Hall, Hubert Ellsworth	ME		•	Marshall
Hall, Hugh Fisher	Agr	30	• †	Bement
Hall, John Wesley	Com	59	• †	Hinsdale
Hall, Joseph Lowe	ChE	106½	• †	Sullivan
Hall, Otis, Jr.	MdP	1½	•	Cartersville
Hall, Ross Cyril	EE	15	• †	Rose Hill
Hall, Ruth Jean	LAS	60	• †	Urbana
Halladay, Frank Herbert	EE	29	•	Buda
Halladay, Harriett Virginia	LAS	61	• †	Streator
Halladay, Ruth Burr	SS	4	•	Buda
Hallauer, William Edward	AE	35	• †	Davenport, Ia.
Haller, Charles Jacob	EE		• †	Stuttgart, Ark.

† "Enrolled" in the S.A.T.C., but not inducted.

Hallett, Dorothy Elizabeth		Mus		†	†	Bloomington
Halperin, Isadore Manuel	SATC	REE		†	†	Chicago
Halterman, Carl Anson	SATC	ME		†	†	Anna
Hamer, Mary Irene		LAS	60	†	†	Emporia, Kan.
Hamilton, Holbrook Becker		Com	55½	†	†	Augusta
Hamilton, James Roscoe		LAS		†	†	Willon Hill
Hamilton, Marjorie Bernice		LAS	90	†	†	Kankakee
Hamlin, Ina Marie		Com (SS)	65½	†	†	Urbana
Hamlin, Iva Pearl		HELAS		†	†	Urbana
Hamm, Bertha Lillian		LAS		†	†	Hennepin
Hamm, Bessie Lucile		SS	4½			Ludlow
Hamm, Harriet Estelle		SS	8			Ludlow
Hammer, Lyle Frederick	SATC	LAS	17	†	†	Farmer City
Hammerlund, Dewey Rea	SATC	ME		†	†	Paxton
Hammerstein, Albert Emil	SATC	CE		†	†	St. Louis, Mo.
Hammond, Catherine Mary		LAS	28	†	†	Pawnee
Hammond, Nelson Allan	SATC	Agr		†	†	Barrington
Hammond, Ruth Florence		HEAgr	5	†	†	Frankfort, Ind.
Hammond, William Harrison	SATC <sup>1</sup>	EE		†	†	Chicago
Hampel, Emil Henry	SATC	Agr		†	†	Chicago
Hamper, Harold Blanchard	SATC	EE		†	†	Aurora
Hampson, Beulah Frederick		HELAS	33	†	†	St. Louis, Mo.
Hanaford, Earl Joseph		Com	104			Champaign
Hanawalt, William Gilbert		ME	111	†	†	Galva
Hancock, Walden Wood		Com	123			Casey
Handler, Julius	SATC	ChE	74	†	†	Chicago
Hankin, Morris		ChE		†	†	Russia
Hanly, Darrell Irving	SATC	Chem		†	†	Muncie
Hannon, John Michael	SATC	Agr	2	†	†	Chicago
Hanschmann, Fred Robert		AE	115	†	†	Dolton
Hansen, Anker Fred		Arch	123	†	†	Oshkosh, Wis.
Hansen, Edward Conrad		EE	5	†	†	Chicago
Hansen, Everett James	SATC	Chem		†	†	Brookston, Ind.
Hansen, James Edward	SATC	Chem	72	†	†	Brookston, Ind.
Hansen, Martin Carl		Com	5	†	†	Chicago
Hanson, George Herbert	SATC	ChE	33	†	†	Chicago
Hanson, Jennings William		EE (SS)	111	†	†	Chicago
Hantman, Nathan	SATC	Com		†	†	Terre Haute, Ind.
Hanzl, George Charles	SATC	ME		†	†	Chicago
Harden, James Edward		CE		†	†	Shelbyville
Hardesty, Bonnie Jean		HELAS (SS)	108	†	†	Urbana
Hardesty, Gladys Mabel		SS	18			Urbana
Hardesty, Josephine Frances		LAS	31	†	†	Urbana
Harding, Edward Clare		Mus sp		†	†	Urbana
Harding, Harold Walter	SATC	ChE		†	†	East St. Louis
Hardwick, See Chen Roy		LAS sp		†	†	Belmond, Ia.
Harewood, Richard Alexander	SATC	Chem	15	†	†	Winnipeg, Manitoba, Can.
Harkins, Edith Leora		LAS	102½	†	†	Tonica
Harland, Clelia Anita		LAS		†	†	Urbana
Harlin, Almond McKinley	SATC	Com		†	†	Jacksonville, Fla.
Harman, Harold Llewellyn	SATC	ChE		†	†	Elkhart, Ind.
Harman, Howard Wynes	SATC	CE	26	†	†	Peoria
Harmeling, Henry Charles		EE	31	†	†	Paducah, Ky.
Harms, Carl Frederick	SATC	ME		†	†	Chicago
Harms, Robert Harmon	SATC	LawP	26	†	†	Chatham
Harn, Jerry Anson		Law sp	41	†	†	Lewistown
Harnack, Vernon Leslie		Chem (SS)	101	†	†	Urbana
Harnish, Wilber Eugene		SS	24½			Mechanicsburg, Pa.
Harper, Elizabeth Fern		LAS	60	†	†	Pleasant Mound
Harpster, Earl Franklin	SATC	ChE		†	†	Olney
Harr, Tyler Harbin	SATC	AE		†	†	Benton Harbor, Mich.
Harrington, Earl Charles		LawP	59	†	†	Champaign
Harrington, J G		CE	52	†	†	Mt. Carmel
Harris, Alice Jane		HELAS		†	†	Marion
Harris, Charles Walter	SATC	EPh		†	†	Hurdsfield, N. D.
Harris, David Thomas, Jr.		ME		†	†	Chicago
Harris, Maurice		Chem	71½	†	†	Chicago
Harris, May Louise		LAS	4	†	†	Joliet
Harris, Merrill George	SATC	Agr		†	†	Yorkville
Harris, Nora Pearl		SS	16½			Johnston City
Harris, Pauline Clova		SS	35½			Arcola
Harris, Yerda Theresa		SS	7½			Abingdon
Harrison, Fred G	SATC	Agr		†	†	Herrin
Harrison, Hugh Brooks		Com	27	†	†	Clinton
Harrison, Jeanette		SS	77	†	†	Kankakee
Harrison, Ruth		HEAgr	58½	†	†	Clinton
Harsch, John Will		ChE	69½	†	†	Ottumwa, Ia.
Harshbarger, Frieda Irene		HELAS		†	†	Inesdale
Hart, Joseph Francis		ChE		†	†	Clinton
Hart, Morris Broadway	SATC	EE		†	†	Vienna
Harter, Siegfried Paul		LAS		†	†	Pana
Hartley, Harold Enos	SATC	Agr		†	†	Centralia

<sup>1</sup> "Enrolled" in the S.A.T.C., but not inducted.

Hartley, Herbert Lee	SATC	ME	*	West Liberty, Ia.
Hartman, Howard Levi	SATC	Arch	35	* † † Indianapolis, Ind.
Hartmann, Bertha Marie		SS	6	* † † Louisville, Neb.
Hartney, Edgar James	SATC	ChE	*	* Chicago
Hartung, George August	SATC <sup>1</sup>	Chem	*	* † † Chicago
Hartwell, Estes E		ChE	*	* Marion
Harvey, Alfred Dallas	SATC	LAS	68	* † † Kansas City, Mo.
Harvey, Frederic Sailor	SATC	Com	*	* † † Fairfield
Harwood, August Homer	SATC	Com	*	* † † Watska
Hasemeier, Homer Frederic	SATC	LawP	*	* Nashville
Hasenpflug, Roy Perilus	SATC	EE	69	* † † Waterloo, Ont.
Hashbarger, Reginald	SATC	ME	*	* Meltoon
Haskin, Lee Roy	SATC	ME	*	* Robinson
Haswell, James McDonald	SNTC	LAS	*	* † Webster Groves, Mo.
Hatch, Brainerd Garretson		EE	109	* † Peoria
Hatfield, Margaret, A.B., 1916		LAS	sp irr	* † Evanston
Hathorne, Zenas Franklin	SNTC	Com	*	* † Waukegan
Haugh, Carl Edwin	SATC	ME	*	* † Whiting, Ind.
Haupt, Dorothy May		Jnl	31	* † Chicago
Havens, James Dewey	SATC	Com	65	* † † Ladoga
Havermale, Harold J	SATC	AE	*	* Canion
Hawk, Grover C. B.S., 1909		SS	4½	* Hedrick, Ia.
Hawk, William Henry	SATC	ME	*	* Granite City
Hawkes, Joseph Bulkley	SATC	ME	*	* † † Rosemond
Hawkins, Harold	SATC	LAS	*	* Otterbein, Ind.
Hawkins, Louis Edison	SATC	CE	*	* Harrisburg
Hawley, Webster Clark	SATC	Agr	53	* † † La Grange
Haworth, Harry Sloan		EE	*	* † † Springfield
Hawthorne, Robert Leroy	SATC	EE	*	* Maywood
Hawthorne, Wendell Zenas	SNTC	ME	59	* Waukegan
Hay, Arthur Vincent		Com		* † Fowler, Ind.
Hayashi, Kazuo		ChE		* † Tokushima, Japan
Hayden, Jerome William		MdP		* † Bloomington
Hayden, Thomas	SATC	EE	*	* Chillicothe
Hayes, Bert Cooper	SATC	LAS	*	* Hastings, Mich.
Hayes, Dulcie		LASs p	*	* † † Ogden
Hayes, Emmett Patrick		Com		* † † Rochelle
Hayes, Robert Cary		LAS		* † † Urbana
Hayman, Joseph Luther	SATC	Agr	18	* Aledo
Hays, Edward Cormaran	SATC	Com	26	* Marion, Ind.
Hayward, Harold Eugene		Com	66	* † † Cooksville
Hazelrigg, Harry Perkins	SNTC	EE	*	* Decatur
Hazelrigg, W Elmer	SATC	MdP	21	* Terre Haute
Hazen, Cecil Reeder		Agr	64	* † † Champaign
Heath, Mildred Dorothy		HELAS		* † † Odell
Heaton, Raymond Lester	SATC	Agr	*	* † † Hoopston
Hebda, Frank Joseph	SATC	CE	*	* Cicero
Hebel, Fred		ME	*	* Chicago
Heberer, Henry Miles		LAS	*	* † † East St. Lo
Hebner, Erwin Fred	SATC	Agr	*	* Alton
Heck, Oliver John	SNTC	ME	*	* St. Charles, Mo.
Heckel, Hermann Conrad Nies	SATC	Chem	58½	* † † Chicago
Heckman, Walter Chris	SATC	EE	73	* † † Pekin
Heda, Arthur Mandil	SATC	AE	73	* † † Chicago
Hedgcock, Dwight Lynn		ChE	*	* † † Augusta
Hedgcock, Jessamine Fern		HELAS	*	* † † Plymouth
Hedgcock, Sloan Franklin		MdP	*	* † † Plymouth
Hedge, Margaret		LAS	29	* † † Chicago
Hedrich, Otto Hoffmann	SATC	ME	33	* Chicago
Hedrick, Marie Adaline, A.B., 1915		Lib	52	* Kansas City, Mo.
Heffelfinger, Ernest Merle	SATC	Com	*	* Champaign
Hegan, Wherritt Werden	SATC	Com	27	* † † Maywood
Heidbreder, Ralph Harold		LAS	*	* Quincy
Heideman, Arthur Gustav	SATC	MdP	*	* Elgin
Heidemann, Francis Joseph	SATC	CE	*	* Rock Island
Heikes, Samuel Irving	SATC	Com	70	* † † Dakota City, Neb.
Heilbron, Simeon Edwin	SATC	LAS	31	* † † Chicago
Heine, Walter William		Arch		* † † Lincoln, Neb.
Heinicke, Herbert Martin Edward		ChE	104	* † † St. Louis, Mo.
Heinle, Grace Gertrude		LAS	*	* † † Argenta
Heinrichs, Robert Mille		MinE	*	* † † Chicago
Heinz, Peter Henry		Agr	28	* † † Carlinville
Held, Irene Lucille		SS	121	* Clay Center, Kan.
Helm, Harry Gray		SS	121½	* Grayville
Helm, Ruth Isabel		LAS	*	* † † Marshall, Mich.
Helm, Verna Mae		LAS	*	* † † Metropolis
Helman, Harry Edgar	SATC	LAS	*	* Waverly
Helms, Elva	SATC	LAS	*	* † † Attica, Ind.
Helpenstell, Fred Max		ME	*	* Rock Island
Helper, Walter Champ	SATC	Agr	33	* † Henry
Hemb, Harold Borden		ME	108	* † † Evanston
Hemb, Thorwald Edward	SATC	Com	68	* † † Evanston

<sup>1</sup>"Enrolled" in the S.A.T.C., but not inducted.

Hempsted, James Evans	SATC	ME	13	•	Chicago
Henderson, Aurel Finley		LAS	28	• +	Paxton
Henderson, Leah		LAS		• +	Ridge Farm
Henderson, Louis Rand		Agr (SS)	25	• +	Biggsville
Henderson, Mary Abigail		SS	130½	•	Urbana
Henderson, Walter George	SATC	Com		•	Lake Forest
Henderson, William, Jr.		Agr	67	• +	Miller's Ferry, Ala.
Hendren, Owen Simpson		Com		• +	Lancaster, Ky.
Hendricks, Elmer Guess	SATC	LawP		• +	Belleville
Hendricks, Ployd William	SATC	Com		• +	Barry
Hendricks, Glen Hayden	SATC	ME		• +	Barry
Henkes, Kirby Ayers	SATC	Chem		• +	Springfield
Henle, Raymond Zoller	SATC	Com		• +	Davenport, Ia.
Henley, Elmer Howard	SATC	Com		• +	Nashville
Henley, Mary Latie		LAS		• +	Mattoon
Henn, Donald Everett	SATC	CE		• +	Park Ridge
Henness, James Harold		ME		• +	Rantoul
Henning, Caspar Ferdinand	SATC	MSE	113½	• +	Mendota
Henning, Edgar Bennett	SATC	EE		• +	Chicago
Henninger, Fred A., Jr.		Arch	33½	• +	Omaha, Neb.
Henninger, Jesse Fred	SATC	Agr		•	Rushville
Henry, Bernard Edward	SATC <sup>1</sup>	EE		•	Villa Grove
Henry, Gifford Harold		MdP		• +	Tulsa, Okla.
Henry, James Luke	SATC	MdP		•	Mt. Sterling
Henry, Vernon Wilmot	SATC	Chem		•	Tulsa, Okla.
Henry, Victor Max		Agr	101	• +	Champaign
Hensley, Olive M.		Mus sp		• +	Champaign
Henson, Charles Newell		Com	67½	• +	Villa Grove
Henson, Ralph Corwin	SATC	EE (SS)	41½	• +	Mt. Sterling, O.
Hepler, Eugenie Louise		SS		• +	Keokuk, Ia.
Heppes, Albert Henry	SATC	Com		• +	La Grange
Herbert, Harold Henry	SATC	AE		• +	Elmwood
Herbert, Ralph Elmer	SATC <sup>1</sup>	ME		• +	Mendota
Herche, George Arlyn	SATC	CE		• +	Rushville
Herrcke, Ralph Julius		Com	63	• +	LaSalle
Herren, Howard Potter	SATC	ME		•	Oswego
Herrick, Norman Gains	SATC	ME		•	Waterman
Herrriott, Lee Alexander		Agr sp		• +	Champaign
Herrmann, Clarence Charles	SATC	Com	65	• +	Kenosha, Wis
Herrmann, Henry Julius	SATC	EE	32	• +	Chicago
Hersman, Gladys Elizabeth		HELAS	62	• +	Hersman
Herwig, Lee Conrad		CE	75½	• +	Ashton
Heseman, Henry Bailie	SATC	Com	69	• +	Allamont
Hess, Doris Edna		Mus	31	• +	Champaign
Hess, Fred Wade	SATC	Com		• +	Villa Grove
Hesse, Aubrey Lawson	SATC	Com	24	• +	Elgin
Hesser, Frank Raymond	SATC	Com		• +	Urbana
Hettinger, Burnell Forrest	SATC	CE		• +	Batavia
Huer, Joseph Henry Anthony	SATC	CE	72	• +	Libertyville
Hewes, Edwin Butcher	SATC	LAS	34	• +	Quincy
Heyne, William Bernhard Christian	SATC	Chem		•	Decatur
Heyse, Henry Emil		SS		•	Kolmar, Germany
Hatt, Dorothea Dooley		Com		•	Kansas City, Mo.
Hbbard, Edith		HELAS	68	• +	Kansas City, Mo.
Hickerson, Roland Thomas		LAS sp		• +	Springfield, Ky.
Hickman, Allen		ChE		• +	Danville
Hickman, Feryl Frances		LAS (SS)	60	• +	Urbana
Hiett, Jesse Earl		MdP	8	• +	Deland
Higdon, Harold Carey	SATC	EE		• +	Kansas City, Mo.
Hildebrand, Thomas Henry	SATC	Agr		• +	Oak Park
Hill, Anita Lucile		LAS		• +	Millersville
Hill, Dorothy Huntington		HEAgr	32	• +	Yorkton, Canada
Hill, Harold Wayne		LAS	73	• +	Decatur
Hill, Irwing Hammond	SATC	Com	30	• +	Hammond, Ind.
Hill, John Lord	SATC	ME		• +	Oak Park
Hill, Karl Bentley		SS		•	Jacksonville
Hill, Kenneth Huron	SATC	Com		•	Moline
Hill, Marlin Bryan	SATC	ChE		•	Hutsonville
Hill, Raymond Max	SATC	Agr	60	• +	Vincennes, Ind.
Hill, Richard Jackson	SATC <sup>1</sup>	Com		• +	St. Louis, Mo.
Hilliard, Hubert John	SATC	EE		•	Ottawa
Hilton, George Joseph	SATC	ChE		•	Chicago
Hilton, Henry Mark	SATC	Com		• +	Chicago
Hilton, Ivan Jay		LAS	35	• +	Springfield
Himes, Shelly Dexter		Com	34	• +	Galva
Hipple, Vaughn Wesley	SATC	Com		•	Villa Grove
Hipple, Cyril Raymond	SATC	LAS		•	Geneseo
Hirsh, Delmar Herman		Agr	9	• +	Quincy
Higgen, Karl William	SATC	CE		• +	Hopkinsville, Ky.
Hixon, Ada Hope		LAS	99	• +	Urbana
Ho, Been Bin		Com sp		• +	Hong Kong, China
Ho, Chee Kin		SS	79	• +	Hong Kong, China

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Ho, Tse Pao		ME (SS)	16	• †	Peking, China
Hoagland, Albert Frederick	SATC	ME	18	• †	Woodson
Hobart, Floyd Beatty		Chem	70	• †	West Lebanon, Ind.
Hobart, Garrett Hugh	SATC	Agr	31	•	Urbana
Hochstetler, Kenneth Vincent	SNTC	ME		•	Sullivan, Ind.
Hochstrasser, Maude Adelaide		LAS		• †	Urbana
Hocking, Helen Elizabeth		LAS	25	• †	Rockford
Hodam, Lowell Alexander	SATC	Agr		•	Ludlow
Hodges, Harriette Lois		Com	32	• †	Rock Island
Hodgson, Horace Mulford	SATC	Jnl	34	• †	Rockford
Hodgson, Wykle Sam	SATC	LAS		•	Murphysboro
Hodsdon, Ruth Elizabeth, A.B., 1913, A.M., 1915		LAS irr			Lyndon
Hoener, Edgar Preston	SATC	ME	32	• †	St. Louis, Mo.
Hoffman, Elizabeth Stark		LAS	32	• †	Champaign
Hoffman, Frank Lewis	SATC	Agr		• †	LaSalle
Hoffman, John Brewster		ChE	41	• †	Kewanee
Hoffman, Josephine Frances Beatrice		LAS		• †	Spring Valley
Hoffman, Mayme Gertrude		LAS	28	• †	Spring Valley
Hoffman, Morris	SNTC	LAS		•	New York, N. Y.
Hoffmann, Mary Margaret		HELAS	103	• †	Champaign
Hogue, Leland Jamieson	SATC	EE	52	• †	Monmouth
Hohman, Theodore Fred	SATC	EE		•	Nashville
Hohmann, Frederick Ralph	SATC	Chem	40	• †	Milwaukee, Wis.
Hoie, Haakon Sverre		Arch	49	• †	Christiania, Norway
Holbrook, Paul Edgar		CE		• †	Dwight
Holcomb, John Jarrett	SATC	LAS		•	Hinsdale
Holderby, Glen Wilbur	SATC	Com		•	Carmi
Holdsworth, Earl William	SATC	Com		•	Chicago
Holland, Harold Leroy		MdP		• †	Pekin
Hollander, Ethel Mary		Com	54	• †	Chicago
Hollands, Harold Waters		ME	8	• †	Oak Park
Hollenbeck, John Milton	SATC	Agr		•	Marshall
Hollenbeck, Mabel Agnes		Com		•	Rockford
Holler, Lee Schofield	SATC	Agr		•	Marshall
Hollingshead, Thomas Elijah		Chem		•	Zion City
Hollingsworth, Chauncey Raymond		EE	110	•	Stronghurst
Hollingsworth, Denzil Maurice	SATC	CE	37	• †	St. Louis, Mo.
Holm, Alvin Herbert	SATC	CE		•	Chicago
Holman, Grace M		SS	1	•	Tobias, Neb.
Holman, Ruth Carolyn		LAS	100½	• †	Kokomo, Ind.
Holmes, Claude Ernest	SATC <sup>1</sup>	Agr		• †	Lindenwood
Holmes, George Lessig	SATC	LAS		•	Baylis
Holmes, Mildred Lileuella		LAS		• †	Chicago
Holmstrom, Paul Rossell	SATC	Agr	47	• †	Joliet
Holson, Richard Lee	SATC <sup>1</sup>	LAS		• †	Farina
Holt, Elisabeth Warner		HELAS	25	• †	Evansston
Holt, Lester Hampton	SATC	Com		• †	Wheaton
Holt, Nellie		HELAS	34	• †	Greenup
Holt, Orval	SATC	Com		•	Milford
Holtermann, Ina Lucille		HELAS (SS)	34	• †	Sadorus
Holton, William Bultman	SATC	ChE	33	• †	Olmsted Falls, O.
Holtzman, Harold Hoover		Agr	103	• †	Chicago
Holzman, Otto Meyer	SATC	ChE	75	• †	Chicago
Holzwarth, Fred	SNTC	ME		•	Rockford
Hombledal, John Bishop	SATC	Agr		• †	Rock Island
Hood, Margaret Billsland		SS Lib sp		•	Moline
Hooglund, Charlotte Christine		LAS		•	Neponset
Hoots, Paul Frost	SATC	Chem	70	•	Mattoon
Hoover, Glen Le Fevre	SATC	Com	37	• †	Sterling
Hoover, Harold Mark	SATC	LAS		•	Ashley
Hoover, Ruth Irene		LAS	33	• †	Lorington
Hope, Herbert Otto		Jnl	72	• †	Meredosia
Hopkins, Helen Millar		Chem		• †	Urbana
Hopkins, John Perry	SATC	MdP		•	Oak Lawn
Hopkins, Le Roy Trimble		Agr		• †	Walnut
Hoppin, Gladys Estella		LAS	98	• †	Virden
Horn, Frank Joseph	SNTC	Com		• †	DuQuoin
Horn, Frederick William	SATC	EE		•	Browns
Hornbeck, Holton	SNTC	EE		•	Decatur
Horner, Edwin Arno	SATC	AE		• †	Kewanee
Horning, Otha Inez		HELAS		• †	Harrisburg
Horraill, Kinneth Chauncey		Com	68	•	Olney
Horrell, Albert Josephson	SATC	Agr		•	Chicago
Horst, Lester Richard	SATC	ME		• †	Rock Island
Horton, Frank Graeff	SATC	ME		•	Chicago
Hoskins, Robert Keith	SATC	Com	122	•	Terre Haute, Ind.
Hostetler, Asa Albert	SATC	LAS		•	Laporte, Ind.
Hostetler, Joseph Columbus		LAS	120	• †	Decatur
Hostetter, Anita Miller, A.B., 1917		Lib		• †	Lawrence, Kan.
Hostrop, Winfred	SATC	Agr		•	Cedar Falls, Ia.
Hottinger, Ethel Marian		LAS	101	• †	Chicago

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Hotz, John William	SATC	MdP		* † †	Marissa
Houck, Opal Fern		SS		† †	St. Joseph
Hough, Warren Roberts		Com	38	† †	Danvers
Hoult, Charles Howard		LawP	88	† †	Chrisman
House, Leona Pearle, A.B., 1898		Mus irr (SS)		† † †	Champaign
Houser, Arthur Martin, Jr.	SATC <sup>1</sup>	ME	53	† †	Oak Park
Houser, George Dewey	SNTC	ME		† †	Newton
Houser, Harold Emerson	SATC	Com		† †	Areyle
Housh, Cecil Noble		Chem	26½	† †	Orlando, Okla.
Hovey, Jeanette Adelaide		Com	10½	† †	Chicago
Hovey, Russell Wilson	SATC	Agr	39½	† †	Capron
Howard, Charles Gerard		LawP	92½	† †	Oakwood
Howard, Daniel Orson		LAS	36	† †	Champaign
Howard, John Carver	SATC	EE	24	† †	Champaign
Howe, Clifford		Com	94	† †	Niles City, Mont.
Howe, Eleanor		HEAgr		† †	Homewood
Howe, Eva		Com	67	† †	Mansfield
Howe, Josephine		Law		† †	Mansfield
Howe, Mary Mae		HELAS		† †	Champaign
Howe, Theodore Roosevelt		ME		† †	Rantoul
Howe, William Harper		ME	1	† †	Rantoul
Howell, Edward Tillson	SATC	ChE	102	† †	Dixon
Howell, Glenn William	SATC	Agr		† †	Toulon
Howell, John Will, Jr.		SS	5½	† †	Loogootee
Howey, Cecil Axton	SATC	Com		† †	Albion
Hrubetz, Rudolph Frank	SATC	ChE		† †	Maryville
Hsieh, Hsueh Lian		Com (SS)	43	† †	Kiangsu, China
Hsu, Kwan-tu Weiman		LAS	105½	† †	Shanghai, China
Huang, Chien Hsun		Com	16	† †	Canton, China
Hubbard, Martha Helen		HELAS		† †	Carrollton
Hubbard, Paul Henry	SATC	Jnl		† †	Mt. Pulaski
Hubbard, Roger Wolcott	SATC	EE		† †	Kankakee
Hubbard, Gerald Wesley	SATC	LawP		† †	Beardstown
Hubbard, Richard Paul	SATC <sup>1</sup>	MdP		† †	Monticello
Huber, John Bartholomew	SNTC	LawP	30	† †	Urbana
Huber, Louis William	SATC	CE	36	† †	Urbana
Huber, Marie		LAS	40	† †	Urbana
Huckelberry, James William	SATC	EE		† †	New Albany, Ind.
Huddleston, Maurice Lyndon	SATC	LAS		† †	Farmer City
Hudgens, Elsie Aiela		HELAS (SS)	29	† †	Johnston City
Hudson, Charles Henry		Chem	65	† †	Oak Park
Hudson, Hersel Windel		Agr	87	† †	St. Joseph
Huff, Helen Elizabeth		Agr		† †	Champaign
Huff, Julia A. A.B., 1916		SS		† †	Salem
Huff, Katherine		LAS	64½	† †	Champaign
Huff, Richard Dwight	SATC	Agr		† †	Plymouth, Ind.
Huff, Walter Bernard	SATC	ChE		† †	Bremen, Ind.
Huffer, Enos George	SATC	Agr		† †	Urbana
Hug, Leslie Joseph	SNTC	Arch	34	† †	Highland
Hughes, Berne Powell	SATC	Chem		† †	Monmouth
Hughes, Guy Lewis	SATC	ME		† †	Robinson
Hughes, Kathryn Howard		LAS		† †	Dowagiac, Mich.
Hurhus, Morris Nelson	SATC <sup>1</sup>	Com		† †	Champaign
Hughes, Ray David	SATC	MdP		† †	Champaign
Huisinga, Peter Marion <sup>2</sup>		RCE		† †	DeLand
Hulet, Jay Earle		SS	59	† †	Urbana
Hull, Elizabeth Zane		SS Lib sp		† †	St. Joseph, Mo.
Hull, Louise		LAS	29	† †	Salem
Hull, Thomas Clinton	SATC	Com		† †	Wheaton
Humphrey, Avern-Stevenson	SATC	EE		† †	Sheffield
Humphrey, Martha Blair		HELAS	66	† †	St. Louis, Mo.
Humphreys, Gertrude		HELAS	101	† †	Organ Cave, W. Va.
Humrichouse, Gladys		Com		† †	St. Joseph
Humrichouse, Katie Lydia Edna		Com	97	† †	St. Joseph
Hunt, Clayton Saunders	SATC	EE	24	† †	Urbana
Hunt, Dorothy Harriet		HEAgr	100	† †	Cambridge
Hunt, Helen Lucile		LAS	60	† †	Oak Park
Hunt, Kenneth		Agr		† †	Roodhouse
Hunt, Leonard Garland	SATC	Com		† †	Springfield
Hunt, Marsden Healey		CerE	93	† †	Urbana
Hunt, Milton Tilmon, Jr.	SATC	Com	103	† †	Warsaw
Hunt, Wiley Emery		Com		† †	Gibson City
Hunter, Adella Allen		LAS (SS)	105	† †	Champaign
Hunter, Arthur David	SATC	Com		† †	McHenry
Hunter, Dresden Bryan		LAS	99	† †	Norwich, Kan.
Hunter, Harold Leslie	SATC	EE		† †	Pesotum
Hunter, John William		SS	9	† †	Colchester
Hunter, Lloyd Hiram		Com (SS)	92½	† †	Henry
Huntington, Lloyd Lucius	SATC	AE	72	† †	Pontiac
Huntzinger, John Lee	SNTC	ME		† †	Kansas City, Mo.
Hupp, Glenn	SNTC	ME		† †	Oblong

<sup>1</sup> "Enrolled" in the S.A.T.C., but not inducted.<sup>2</sup> Deceased.

Hurley, Frank John		Com	91	† †	Chicago
Hurt, Erwin Fred	SATC	ME		† †	Chicago
Hurt, John Smith	SATC	LAS		† †	New Berlin
Husselman, Edward J		LAS	8	† †	Kendallville, Ind.
Husselman, Ernest Alfred	SATC	LAS		†	Bufile, Ind.
Hust, George William	SATC	CE		†	Chicago
Husted, Irma Jean		LAS		† †	Cornell
Husted, Stanley F	SATC	Com		† †	Bloomington
Hutchins, Anna Elizabeth		LAS	64	† †	Roscoe
Hutchison, Aline Gertrude		LAS		† †	Mt. Vernon
Hyde, Harvey Woolsey		Chem	105	† †	Watertown, N. Y.
Hyde, Rosa Kate		Mus sp	13	† †	Rising
Hyde, William Allen	SATC	LAS		*	Olney
Hyett, Harold Charles	SNTC	Com		*	Montrose
Hyland, Christine Barbara		LAS (SS)	1	† †	Champaign
Hyland, Winona Clarissa, B.S., 1915		SS			Champaign
Hylbert, Annic Laurie		SS	3		Gifford
Iben, Ida Hermina		LAS	68	† †	Peoria
Ibenfeldt, Ralph Winfield	SATC	ME	45	† †	Chicago
Icenogle, Carus Stanley	SATC	Com	2	† †	Maltoon
Ingmanson, John Harold	SATC	ChE	37	† †	Harvey
Ingold, Arthur Johnson, Jr.	SATC	ME		† †	Appleton, Wis.
Ingrahm, Laurence Vancel	SATC	ChE		†	Prescott, Ariz.
Ingram, Percy Francis	SATC <sup>1</sup>	ME		*	Mt. Sterling
Ingwersen, Burton Ahrens	SATC	CE	72	† †	Fullton
Ingwersen, John Arthur	SATC	Jnl	66	† †	Chicago
Ingwersen, Philip Augustine	SNTC	ME		† †	Chicago
Inman, William Burke	SATC	LawP	30	*	Murphysboro
Innis, Charles Albert		LAS sp		*	Bellflower
Inonye, Tomi	Agr		83	†	Chiba City, Japan
Ireland, Hallie Madeline		LAS	31	† †	Washburn
Irwin, Dalton		SS	34½		Grand Forks, N. D.
Irwin, Ima		SS	5		Maroa
Irwin, Phillips Arthur		LAS		† †	Normal
Isaac, John		CE sp		*	Athara, Egypt
Isay, Julius Lyman	SATC	Com		† †	Churubusco, Ind.
Isbell, Harold Howland	SATC	Com		†	Maywood
Iseberg, Samuel Bernard	SATC	ChE		*	Chicago
Isenhardt, Lawrence Francis	SATC	LAS		*	Mt. Carroll
Isobe, Seichi		ME (SS)	51½	† †	Oosaka, Japan
Ito, Kimichiro Ito		EE	35	†	Annaka, Japan
Iverson, Chester Stanley	SATC	Agr		*	Oak Park
Iwig, Howard Philip		Com	63	†	Peoria
Jack, Elmer Simmons	SATC	LAS		† †	Wadsworth
Jack, John Marshall	SATC	CE		† †	Wadsworth
Jack, Madeline Sarah		HELAS	23	†	Peacock
Jack, William Ralston		Arch		† †	Springfield
Jacks, Robert Lytle	SATC	Com		†	Ottawa
Jackson, Alma Augusta <sup>2</sup>		HEAgr sp		†	Philadelphia, Pa.
Jackson, Andrew Stokes		LAS	28	† †	Champaign
Jackson, Anna Elizabeth		LAS (SS)	100	† †	Champaign
Jackson, Clifford Lawrence		EE		† †	Berwyn
Jackson, Floyd Edward		Agr		†	Fisher
Jackson, Hobart Harry		CE	72	† †	Kenney
Jackson, Ross Edison	SNTC	EE		*	Farmington
Jacobs, Charles Dana	SATC	MinE		† †	West Frankfort
Jacobs, Donald Lee		ME	36½	† †	Trivoli
Jacobs, Maurice Everett	SATC	LAS		†	Sharon, Wis.
Jacobsen, Ivan Porter	SNTC	Com		† †	Brocton
Jacobson, Carl Clifford	SATC	ME	30	†	Chicago
Jacobson, Kathryn Allan		LAS		† †	Ouray, Colo.
Jacquin, Wentworth Cory, A.B., 1918		LAS irr	130	†	Peoria
Jahr, Walter Harold	SATC	Agr		*	Neillsville, Wis.
James, Fred Leonard	SATC	Com			Rossville
James, Helen Ida		SS	130		Whitewater, Wis.
James, Hobart Carrington	SATC	Com		† †	Rockford
James, Joseph Alfred	SATC	ME		*	Lawrenceville
James, Sybil Juanita		LAS	30	† †	Mansfield
James, Walter Robert	SATC	Com	65	† †	Breedsville, Mich.
Jamison, Albert Woodward		Agr sp		†	Urbana
Jamison, David Newton	SATC	LAS		† †	Burlington, Ia.
Jamison, Glen Thomas	SATC	EE	107	† †	Joplin, Mo.
Jamison, Harold Edward		AE	45	*	Pontiac
Janata, Anton James	SATC	LAS	87½	† †	DeKalb
Janes, Everett Charles	SATC	LAS		†	Kewanee
Janes, Gale McCray		EE		†	Bloomington
Janowitz, Louis Herbert		ChE		†	Waukegan
Janssen, Julius Ingwer		Com	10	†	Sterling
Janz, Arthur William	SATC	CE		†	Peou
Jasper, Lucinda Emmeline		HELAS	54	† †	Liskeard, Cornwall, Eng.
Jaycox, Noble Edward		SS	8½		Watson

<sup>1</sup>"Enrolled" in the S.A.T.C., but not inducted.<sup>2</sup>Deceased.

Jefferson, Benjamin Paul	SATC	Com		Bloomington
Jeffries, John H		Law		† † Lerna
Jenkins, Gilmore Lewis	SATC	LAS		† † St. Charles, Mo.
Jenkins, Lyman Hall	SNTC	MdP	31	† † Carthage
Jenner, Lawrence Tenney		Com	102	† † Evansville, Ind.
Jennett, Harold Patrick		EE	64	† † Streator
Jennings, David Sawyer	SATC	ME		† † Chicago
Jensen, Myrtle Ruth		LAS	65	† † Chicago
Jensen, Sigrid Biergytta		HELAS sp		† † Chicago
Jeschka, George Dewey	SATC	ME		† † Chicago
Jude, Mrs. Lena May		Mus sp	2	† † Urbana
Jewell, Laura Marian		LAS	27	† † Colorado Springs, Colo.
Jirka, Frank Joseph	SATC	EE	71	† † Chicago
Jobim, Labieno So		Agr sp		† † Porto Alegre, Brazil
Jobst, Helen Jane		LAS		† † Ottawa
Johannes, Marvin Harry	SATC	Com		† † Pekin
Johler, Arthur Clarence	SATC	Com		† † Blue Island
Johas, Harold Byron	SATC	ChE		† † Oak Park
Johns, Harry Corwin	SNTC	EE (SS)		† † Ellery
Johns, Jesse Roy	SATC	Chem	8	† † Rockford
Johns, Marion Elizabeth		LAS	94	† † Rockford
Johnson, Archie	SATC	Agr	53	† † Mattoon
Johnson, Armer Clark		LAS	51	† † Rockford
Johnson, Arno Charles	SATC	EE	56	† † Donovan
Johnson, Arthur Aloysius	SATC	LAS		† † Joliet
Johnson, Berenice Jeanette		HELAS		† † Bishop Hill
Johnson, Bruce Ward	SATC	Com	31	† † Rockford
Johnson, Carl Alfred	SATC	Com		† † Joliet
Johnson, Charles Bayard	SATC	Com	32	† † Rockford
Johnson, Charles Wallace	SATC	LAS		† † Chicago
Johnson, Cleora Eleanor		HEAgr	62	† † St. Charles
Johnson, Clinton Goodloe	SATC	Agr		† † Danville
Johnson, Dewey Woodruff	SATC	CE		† † Marshall
Johnson, Dillard Dewey	SATC	Agr		† † Grayville
Johnson, Donald Carey	SATC	Com		† † South Bend, Ind.
Johnson, Edgar Jerome	SATC	LAS		† † Orion
Johnson, Edith Marie		LAS		† † Cairo
Johnson, Elden Daniel	SATC	Com		† † El Paso
Johnson, Elmer Albert	SATC	CE		† † Rock Island
Johnson, Elmer Thomas	SATC	Com	33	† † Rockford
Johnson, Emil Balder	SATC	ME		† † Cary Station
Johnson, Ethan Allen	SATC	Com	31	† † Kankakee
Johnson, Florence Bairstow		LAS	67	† † Waukegan
Johnson, Harold Nels	SNTC	ME		† † Moline
Johnson, Harold Urban	SATC	Com	31	† † Bloomington
Johnson, Helen Currie		LAS		† † Oak Park
Johnson, Herbert Alfred	SATC	ME		† † Chicago
Johnson, Hjalmar William	SATC	MinE		† † Joliet
Johnson, Howard Reynold	SATC	EE		† † Bishop Hill
Johnson, James Glynn		Com		† † Champaign
Johnson, James Olison	SATC	ChE		† † Chicago
Johnson, Mrs. Jean Ripley		Agr	111	† † Chicago
Johnson, John Raven	SATC	Chem	95	† † Chicago
Johnson, John Raymond	SATC	Chem		† † Joliet
Johnson, John Robert		LAS	90	† † Decatur
Johnson, Julia Marie		Com	24	† † Urbana
Johnson, Julian Edgar	SATC	Com		† † Riverside, Wash.
Johnson, Mildred		HELAS (SS)	58½	† † Danville
Johnson, Paul La Forest	SATC	REE	35	† † Wichita
Johnson, Paul Lee		Agr		† † Elgin
Johnson, Philip Leonard	SATC	ME		† † Danville
Johnson, Ralph Cecil	SATC	ME		† † Kankakee
Johnson, Ras Edgar		Com	40	† † Humboldt, Kan.
Johnson, Reinhold Enoch	SATC	MdP		† † Chicago
Johnson, Richard Henderson		Com	97	† † Danville
Johnson, Robert Carl, A.B., 1914		SS	132	† † Pana
Johnson, Russell Harold	SATC	ME		† † Moline
Johnson, Selvar Gerwin	SATC	Com		† † Chicago
Johnson, Sharon Perry		SS	22½	† † Cornell
Johnson, Theodore William	SATC	Com		† † Moline
Johnson, Walfred Emanuel	SATC	FPh		† † Chicago
Johnson, Walter Harris		EE	76	† † Chicago
Johnson, Walter Lane		Agr		† † Assumption
Johnson, Warren MacIntyre		SS	68	† † St. Louis, Mo.
Johnson, William Frederick, Jr.	SATC	CE		† † Mattoon
Johnson, William Moss	SATC	Com		† † Mound
Johnston, Bess J., A.B., 1914		Lib	32	† † Minneapolis, Kan.
Johnston, Clarence Lee	SATC	Agr	15	† † Champaign
Johnston, Donald Aura	SATC	Agr		† † Hudson
Johnston, Harold Boomer		Jnl (SS)	96	† † Champaign
Johnston, Hazen Henry		Com	63	† † Ft. Wayne, Ind.
Johnston, Irl John	SNTC	LAS		† † Carlyle
Johnston, Lillian Ruth, A.B., 1918		LAS irr	130	† † Champaign
Johnston, Margaret Adeline		LAS		† † Alton
Johnston, Pauline		LAS	96	† † Alton

Johnston, Robert Jordan	SATC	Agr	•	†	Pontiac	
Jolly, Meta Georgia		LAS	•	†	Champaign	
Jones, Arthur Pembroke	SATC	MdP (SS)	35½	•	Bradford	
Jones, Arthur Valentine	SATC	Chem	•	†	Chicago	
Jones, Bernicelyn Fishback		LAS	64	•	Urbana	
Jones, David	SNTC	Com	•	†	Taylorville	
Jones, Elsie Alice		SS	5	•	Monroeville, Ind.	
Jones, Ethel Marguerite		LAS	35	•	†	Lakewood, O.
Jones, Florence Dorothea		LAS	65	•	†	Raymond
Jones, Floyd Everett		Com	•	†	Denver	
Jones, Frederick Warren	SATC	Chem	•	†	Oregon	
Jones, George Orville		Chem	•	†	Loraine	
Jones, Harvey Doig	SATC	MdP	•	†	Maywood	
Jones, Helen Beatrice		LAS	•	†	Champaign	
Jones, Leanora Gertrude		SS	7½	•	Newton	
Jones, Leland Burns		LAS	64	†	Centreville, New Brunswick	
Jones, Lucy May		SS	7	•	Alton	
Jones, Margaret Virginia		LAS	•	†	Henry	
Jones, Majorie Ann		LAS	27	•	†	St. Louis, Mo.
Jones, Marvel Armored		LAS	53	•	†	Urbana
Jones, Mary Emily		LAS	•	†	Amboy	
Jones, Maurice Leigh		LAS	•	†	Johnston City	
Jones, Norman Hugh	SATC	Com	15½	•	Omaha, Neb.	
Jones, Opal Rogers, A.B., 1910		SS	132	•	Sidney	
Jones, Valentine Austin		Chem	28	•	†	Buffalo, N. Y.
Jones, Vera Elizabeth		LAS	32	•	†	Monmouth
Jones, Vera Gretchen		LAS	58	•	†	Urbana
Jones, William Edward	SATC	EE	•	†	Urbana	
Jones, William Hamilton		Agr	•	†	St. Louis, Mo.	
Jones, William Joseph		Com	100	•	†	Elgin
Jones, William Paul	SATC	EE	•	†	Tonkawa, Okla.	
Jones, William Robert		Agr	83	•	†	Kirkland
Jordan, Byron Henry	SATC	ME	•	†	Elkhart, Ind.	
Jordan, Donald Voorhees	SATC <sup>1</sup>	Jnl	•	†	Minneapolis, Minn.	
Jordan, Emily Kathryn		LAS	90	•	†	Carlinville
Jordan, Harold Emery	SATC	Com	30	•	†	Chicago
Jorstad, Louis Helmar		MdP	32	•	†	Morris
Joseph, Glenn Howe		ChE	•	†	Tuscola	
Joseph, Lawrence Herz	SATC	Com	•	†	Terre Haute, Ind.	
Joslyn, Gladys Irene		HELAS	98	•	†	Marengo
Joss, Clifford F., Jr.		EE	•	†	La Grange	
Joy, Charles Higgins		Agr	•	†	Chapin	
Juby, Eldon Joseph	SATC	Com	•	†	Blue Island	
Judy, Viola Elizabeth		LAS	•	†	Potomac	
Juelg, Newell Raymond	SATC	ChE	•	†	Peoria	
Julian, Horace Bliss	SATC	ChE	•	†	Logansport, Ind.	
Juline, Carl		AE	73½	•	†	Des Moines, Ia.
Junkin, Della Darle		SS	10	•	†	Great Falls, Mont.
Junqueira, Alvaro, Jr.		RCE	97	•	†	Curlyba, Brazil
Jurgens, Hilsie Elsie		LAS (SS)	100	•	†	Savanna
Kaapke, Lyle Frederick	SATC	LAS	•	†	Maywood	
Kadyk, David James		Law (SS)	•	†	Fulton	
Kadyk, John Claudius	SNTC	Com	23	•	†	Fulton
Kaffer, Earl Louis	SATC <sup>1</sup>	Com	•	†	Joliet	
Kagy, Leigh Monroe	SATC <sup>1</sup>	LowP	•	†	Salem	
Kaiser, Clifford Allen	SATC	ChE	•	†	Chicago	
Kaiser, Paul William	SATC	Com (SS)	19	•	†	Chicago
Kalbfleisch, Chester A	SNTC	Com	•	†	Collinsville	
Kallas, James George		Agr	•	†	Chicago	
Kalthoff, Frederick Caspar		Arch (SS)	125	•	†	Chicago
Kalver, Roy Lawrence	SATC	LAS	•	†	Decatur	
Kammermann, Clarence	SATC	LawP	29	•	†	Forrest
Kammermann, Hermina		LAS	42½	•	†	Forrest
Kamradt, Esther Mabel		Mus sp	•	†	Sadorus	
Kane, John Edward Clement	SNTC	Com	•	†	Chatsworth	
Kaney, John Henry		Agr	46	•	†	Forreston
Karlin, Isaac		MdP	•	†	Russia	
Karr, Mae		HELAS	64	•	†	Seymour
Karrer, Roselle Mae		LAS	•	†	Seattle, Wash.	
Kasmar, Raymond Eugene	SATC	Mus	•	†	Cicero	
Kastner, Donald Elbert		EE	•	†	Geneva	
Kastner, Hugh Lester	SATC	Agr	•	†	Geneva	
Katanik, Isadore	SATC	EE	•	†	Indianapolis, Ind.	
Katterjohn, George William, Jr.	SATC	CerE	20	•	†	Paducah, Ky.
Kaufman, Samuel	SATC	Jnl	•	†	Bayonne, N. J.	
Kaufman, Stanley Louis	SATC	LAS	•	†	Champaign	
Kaufman, Vivian Gregor	SNTC	CE	•	†	Champaign	
Kaune, Irene Lois		LAS	65	•	†	Donnellson
Keagy, Abraham Reuel		ME	130	•	†	Urbana
Kearns, Edward John	SATC	AE	•	†	Peoria	
Keas, Elsie May		SS Lib sp	•	†	Carlinville	
Keatts, Rolla Merl		AE	57	•	†	Sheldon

<sup>1</sup>"Enrolled" in the S.A.T.C., but not inducted.

Kebbon, Richard Arthur	SATC	Com		*	Chicago
Keehner, Clarence Barnhard		Com	70	† †	Jerseyville
Keeley, Kent Kenneth	SNTC	EE	6		Carrollton
Keen, Clyde		LAS		† †	Champaign
Keen, Jesse Lynn	SATC	CE			Milford
Keepers, Floyd Willard		Agr	84	† †	Mazon
Keepers, Lloyd William		Agr	86	† †	Mazon
Kenfer, Lawrence Raymond	SATC	EE	107	† †	Robinson
Kengwin, James Robert	SATC	Agr		† †	Walnut
Keiser, Frank Martin		MdP	30	† †	Murphysboro
Keister, Arthur Milton	SATC	LavP		† †	Rockford
Keith, Stuart William		Com		† †	Peoria
Keithahn, Arthur Cleve	SATC	Agr		† †	Walnut
Kell, Roy Perren	SATC	Com			Rock Island
Keller, George Ernest	SATC	ChE		† †	Jonesboro
Keller, Russel Calvin	SATC	Com	5		Champaign
Kelley, Harry William		Com	8	† †	Glen Ellyn
Kelley, Harvey Theodore	SATC	EE			Chicago
Kelley, Victor Wendell		SS	8½		Fairfield
Kellner, Arthur William	SATC	Agr		*	Chicago
Kelly, Charles Holland	SATC	Com		† †	Bryan, O.
Kelly, Francis Joseph		SS			Chicago
Kelly, Inez Juanita		HELAS	34	† †	Greenup
Kelly, John Francis	SATC	MdP	39	† †	Vincennes, Ind.
Kelly, Joseph Sherman	SATC	Com		† †	Watseka
Kelsey, Willard Wahl		Com	37	† †	Sterling
Kemier, Robert Lynch	SATC	EE	53	† †	Elgin
Kemp, Charles Delbert	SATC	Agr	54	† †	Waynetown, Ind.
Kemp, Emery Leland	SATC	AE		† †	Waynetown, Ind.
Kemp, Katharine		LAS		† †	Paxton
Kendall, Curtis Patterson	SATC	Com	16	*	Louisville, Ky.
Kendall, Ethel Florence		SS	8		Clinton, Ia.
Kendall, Forrest Everett		Chem	32	† †	Victoria
Kendall, Mary Lilly		SS	72		Farmer City
Kendall, Russell Edward	SATC <sup>1</sup>	Agr		† †	Victoria
Kennedy, Emily Jane		LAS (SS)	73½	† †	Morrison
Kennedy, John Raymond	SATC	LAS		† †	Yorkville
Kennedy, Lillian Cora		LAS	14	† †	Chester
Kennedy, Marguerite		LAS	101	† †	Morrison
Kennedy, Mary Cecilia		SS	6		Chester
Kennedy, Thomas Eugene	SATC	Com	65	† †	Aurora
Kennedy, William Harvey	SATC	LAS		† †	Lacon
Kennelley, Griffith Sidney		CerE	107	† †	Joliet
Kenney, Mrs. Pearl Craven		SS	10½		Sumner
Kenney, Wendell Lyons	SNTC	EE	73	† †	Champaign
Kennish, Marian Grosvenor		LAS		† †	Kewanee
Kenny, Herbert Miner	SATC	Com		† †	Champaign
Kenny, Marion Kathryn		HEAgr	99	† †	Champaign
Kent, Alexander Joseph	SATC	Com		† †	Murphysboro
Kent, Everett Frank, B.S., 1917		Agr irr	130	†	Gridley
Kent, Gaylon Clarence	SATC	ME		†	Olney
Kent, Harold Winfield	SATC	LAS		*	Chicago
Kent, Richard Eugene	SATC	Mus	34	† †	Urbana
Kenworthy, Anna Jane		SS	72	† †	Neoga
Kenyon, Allan Titworth	SATC <sup>1</sup>	MdP		† †	Aurora
Kerchner, Emil Lorenzo		LAS		† †	Freeport
Kerchner, Russell Marion	SNTC	EE		† †	Bellefonte
Kerckhoff, Elmer Martin		Chem		† †	St. Louis, Mo.
Kerlin, Delbert Monroe	SATC	Com		† †	Silver Lake, Ind.
Kermeen, Maurice Leonard	SATC	Com			Galva
Kern, Dorothea Estell		Agr		† †	Champaign
Kern, Florence Ellen, B.S., 1917		SS	137		Champaign
Kern, Floy Marie		LAS		†	Urbana
Kerns, Charles Maris	SATC	Com	24	†	Moline
Kerr, Harvey Van Ansland	SATC	Agr	8	†	Mallard
Kerrihard, Chad Chapman	SATC	LAS		†	Red Oak, Ia.
Kertis, Emmeline Elizabeth		LAS		† †	South Bend, Ind.
Kesler, Ralph Christ	SATC	ME		*	Beardstown
Kessinger, Ethel Marie		SS			Carrollton
Kessler, John Philip		Agr		† †	Red Bud
Ketzler, Adolph Carl	SATC	Com	10	† †	Chicago
Keyes, Norman Belcham	SATC	LAS		*	Chicago
Keyes, Otis Walton		SS	19		Rantoul
Keyser, Ford Isaiah	SATC	CE	36	*	Plymouth, Ind.
Kibler, Clarence Troit	SATC	Agr	29	† †	Streator
Kief, Lester Clarence	SATC	ME			Lowpoint
Kiefer, Dorothy Wallace		Jnl		†	Peoria
Kieffer, Chester Le Roy	SATC	Jnl		† †	Robinson
Kiem, Edgar Christian	SATC	Agr		†	Quincy
Kies, Benjamin Bernhardt		LAS		†	Warrenton, Mo.
Kilbury, Gennette Fae		LAS		† †	St. Joseph
Kile, Lucille Faustine		LAS	6	† †	Ivesdale

<sup>1</sup>"Enrolled" in the S.A.T.C., but not inducted.

Kiley, Leo Robert	SATC	AE	23	* †	Chicago
Kilgore, Kenneth White		Com		*	La Harpe
Killpatrick, Emery Francis	SATC	Agr		*	Hillsboro
Kilpatrick, George Harrington	SATC	LawP	23	* †	Fairfield, Ia.
Kilpatrick, John Robert	SATC	ChE		*	Elmwood
Kimmelshue, Florence Ada		HELAS	24	* †	Manteno
Kincaide, Harry Hadley	SATC	ME		*	Pueblo, Colo.
King, Charles Aloysius	SATC	ChE		*	Sheffield
King, Donald E	SATC	Com		*	Maywood
King, James Xenophon		Agr	82½	† †	Richmond, Ind.
King, Merrill Barnett		SS	45½	† †	Bridgesport
King, Merritt Alfred	SATC	CE		*	Maywood
King, Philip Gregory	SATC	EE	31	* †	Glencoe
King, William	SATC	LAS (SS)	102½	* †	Dudley
Kinley, Harriet Louise		SS	4	*	Urbana
Kinnane, William Edward	SATC	Com		*	Elgin
Kinney, Percy Le Roy		Agr	34	† †	Galesburg
Kinney, Robert Miller	SATC	EE		* †	Memphis, Mo.
Kinsey, Esther Eloise		LAS	54	† †	Oelwein, Ia.
Kirby, Edna Elbira		SS	6½	*	Eureka
Kirby, James Frank	SATC	Agr		* †	Rochelle
Kirby, Nelle Almeda		Mus (SS)	40	* †	Eureka
Kirby, Warren Lyons	SATC	EE	32	* †	Hull
Kirchert, Ottis Herbert	SATC	EE		*	Delavan
Kirchhofer, Emma Esther		Com	83	† †	Kansas City, Mo.
Kirk, Esther Oneita		HELAS	56	† †	Taylorville
Kirk, Ewing Leavitt	SATC	Com (SS)	50½	*	Urbana
Kirk, Josephine		SS		*	Decatur
Kirkpatrick, Elsie Virginia		LAS		* †	Urbana
Kirkpatrick, Frank Burke	SATC	Com		* †	Tiskilwa
Kirkpatrick, Harry Louis		LAS	97	† †	Des Moines, Ia.
Kirkpatrick, Jesse Bertram		Mus sp		*	Champaign
Kirkpatrick, Vera Lucille		HEAgr		* †	St. Joseph
Kirkwood, Glenn Martin	SATC	ME		*	Lawrenceville
Kirley, Donald Joseph	SATC	ME	27	*	Oak Park
Kirsten, Margaret		Jnl		* †	Paris
Kirwan, Cecile Anne		LAS	26	* †	Champaign
Kiser, Helen Mynette		SS	133	*	Champaign
Kishi, Ryoichi		Agr sp		†	Tokyo, Japan
Kissinger Clarence Andrew	SATC	Arch		* †	Olney
Kissinger, Donald Kenneth		Com	62	* †	Evanston
Kistner, Earl Franklin	SATC	Com		*	Blue Island
Kitch, Stanley Billings	SATC	ME		* †	Berwyn
Kittinger, Ellen Louise		Com	29	* †	Allon
Kizer, Zeniar		LAS	60	* †	Maltoon
Klamser, Harry William	SATC	Agr	33	* †	Aurora
Klaproth, William Otto	SATC	EE		* †	Chicago
Klaus, John Arthur	SATC <sup>1</sup>	Com		* †	Chicago
Klawkoske, Anthony Joseph	SATC	EE	13	*	Chicago
Kleckner, George Malburn	SATC	Com	68	* †	Freeport
Kleder, George Madison, Jr.		Com	40	* †	Marion, Ind.
Klein, Monica A		LAS	61	* †	Urbana
Klein, Rudolph Leo		EE		* †	Ottawa
Kleinbeck, Albert Alton		Aer		*	Bellflower
Klenze, Delmar Charles Henry	SATC <sup>1</sup>	Com		* †	Chicago
Kleymeyer, Ralph Theodore	SATC	CerE		* †	Evansville, Ind.
Kline, Alice Harper		HELAS	97	* †	Huntington, Ind.
Kline, Clifford Everett	SATC	Com		*	Chicago
Kline, Lawrence Everette	SATC	Com		* †	Chicago
Kling, Carl Lawrence		CerE	95	* †	Dixon
Kling, Helmar Gust Linne	SATC	LawP		* †	Rockford
Klingberg, William Joseph		ME		* †	Spring Valley
Klippel, Theodore William	SATC	LAS		* †	Indianapolis, Ind.
Klopper, Victor Ferdinand Henry	SATC	ChE		* †	St. Louis, Mo.
Klopp, Leanna Ruth		Mus sp		* †	Streator
Klotz, William George	SATC	CE		* †	Chicago
Klotzsche, Eunice Esther		SS	30	*	Urbana
Klump, Glen Murl	SATC	ME		*	Robinson
Knapheide, Douglas Merle	SATC	MdP	16	* †	Quincy
Knapheide, Mildred Carey		LAS	62	* †	Quincy
Knapp, Aurella, B.L.S., 1912		SS	62	*	Normal
Knapp, Curtis Ferdinand	SATC	Com		*	Bement
Knapp, Ruth Isabel		SS Lib sp		*	Ottawa
Knapp, Vera		HELAS		* †	Ashton
Knapp, Vernon	SATC	LAS		* †	Ashton
Knauer, Harley Lillard	SATC	ChE		* †	DuQuoin
Knauss, Richard Henry	SATC	ME		* †	Peoria
Knecht, Paul Edward	SATC	MdP		*	Kankakee
Kneier, Charles Mayard	SATC	LawP		* †	Keyesport
Knight, Frank Burrows	SATC	ME		* †	Hickland Park
Knight, Galen Victor		Law		* †	Urbana
Knight, John Richard Watrous	SATC	Com		* †	Evanston

<sup>1</sup>"Enrolled" in the S.A.T.C., but not inducted.

Knipp, Pauline Louise		LAS	• † †	Urbana	
Knipschild, Leon Francis	SATC	Com	• † †	Freeport	
Knobeloch, Kenneth Thomas	SATC	Jnl	• †	Belleville	
Knocke, Arthur Edmore	SATC	CE	•	Davenport, Ia.	
Knoll, George Lewis	SATC	CE	•	Poland, Ind.	
Knox, Howard York	SATC	Com	•	Hoopston	
Knox, Walter Andrew	SATC	Agr	•	Morrison	
Kobayashi, Toshiyuki		Com	66	• † †	Tokyo, Japan
Koch, Edna Elizabeth		HELAS	• † †	Urbana	
Koch, George Washington	SATC	Com	56	• † †	Davenport, Ia.
Kocour, Cyril Joseph		ChE	• † †	Chicago	
Koehler, Oscar Henry	SATC	EE	43	• † †	Chicago
Koenig, Karl Frederick	SATC	ChE	• † †	Allon	
Koepke, Frank Henry Paul		ME	86	• † †	Chicago
Koewing, Leland Hoborg		LawP	•	Hoberg, Mo.	
Kogoski, Vincent Anthony	SNTC	Chem	•	LaSalle	
Kohl, Gerald Samuel	SATC	Com	30	• † †	Centrolia
Kohl, Hilda		LAS (SS)	100	• † †	Venice
Kohler, Clarence Edward	SATC	Com	33½	• † †	DeKalb
Kohler, Gerald Elmer		SS	72	•	Chatsworth
Kohn, Myron Kenny	SATC	Com	•	Indianapolis, Ind.	
Kohn, Walter Clarence Albert	SATC	Com	25	• † †	Chicago
Kohner, Edwin Martin	SNTC	Com	58	• † †	Chicago
Komrosky, Morris Louis	SATC	Arch	71	• † †	Gary, Ind.
Koo, Shun		RCE	116	• † †	Kwang-Fung, China
Kopke, Fred Thomas	SATC	Jnl	32	• † †	Pueblo, Colo.
Kopp, William Kenneth	SATC	Com	51	• † †	Chicago
Koptik, Ernest Andrew	SATC	Law	•	† †	Cicero
Koraleski, Frank Walter	SATC	LAS	•	† †	Chicago
Korpinen, Lauri Ilmari		EE	•	†	Abo, Finland
Kotek, Dominic Joseph		SS Lib sp	•	† †	Chicago
Kough, Earl Hurst	SATC	Com	• † †	† †	Blue Island
Koupal, Elsa Emily		LAS	32	•	Crown Point, Ind.
Koupal, Helen Marie		LAS	30	•	Crown Point, Ind.
Koupal, Walter George		Chem	100	• † †	Crown Point, Ind.
Kral, Albert Alva		EE	83	•	Chicago
Kral, John Peter	SATC	CE	•	•	Chicago Heights
Kramer, Charles Henry		ME	71	• † †	Allon
Kramer, Erwin Albert	SATC	Chem	25	• † †	Chicago
Kramer, Frederick William	SATC	ChE	•	•	Chicago
Kramer, Max William	SATC <sup>1</sup>	Law	2	• † †	East St. Louis
Krametbauer, Irma Theresa		LAS	97	• † †	Chicago
Krametbauer, Milada Dessie		Com	•	•	Chicago
Kramm, Hartzell Wolfee	SNTC	CE	•	•	Aledo
Krannert, Victor Louis		Com	106½	• † †	Anderson, Ind.
Kratzmeir, Fred C	SATC	CE	•	•	Kansas City, Mo.
Krause, Elmer George	SNTC	EE	•	• †	Belleville
Krelstein, Barney Sydney		Com	6	• † †	Chicago
Krenz, Elsa Louise		LAS	63	• †	Chicago
Kretschmer, Clarence Martin	SATC <sup>1</sup>	Com	•	• †	Chicago
Krieg, Amelia, A.B., 1917		Lib (SS)	32	• † †	Riverside
Kriege, Herbert Frick		SS	6	•	Warrenton, Mo.
Krueger, Howard Andrew	SATC	ME	35	• † †	Blue Island
Kruger, Theodore		ME	76½	• † †	Peoria
Krupka, George Frank	SATC	Com	29	• † †	Chicago
Kuch, Mildred Carolyn		LAS	65	•	Clinton
Kuczaj, Stephen Andrew	SATC	Agr	19	•	Harvey
Kuebler, Genevieve Fay		LAS	•	† †	Mt. Vernon, Ia.
Kuehl, Edwin Christ	SATC	CE	•	• † †	Davenport, Ia.
Kuehne, Carl William		Chem	•	• † †	Chicago
Kugler, Martha		HELAS (SS)	63	•	Plano
Kuhn, Carolyn Sturm		SS	4	•	Champaign
Kuhn, Florence Ruth		SS	4	•	Champaign
Kuhns, Edward Everett	SNTC	ME	•	•	Springfield
Kunart, Luther Carl	SATC	LAS	•	•	Carlinville
Kunze, Ernest John	SATC	LAS	27	•	Marissa
Kupperman, Bernard		LAS sp	•	• †	Chicago
Kupperman, Solomon Jack		CE	97	• † †	Chicago
Kurt, Mary Annetta		HELAS	97	• † †	Champaign
Kurz, Rudolph Ferdinand	SNTC	MdP	21½	• † †	Trenton
Kusama, Isamu		RCE	•	• †	Tokyo, Japan
Kwok, Noi Hoh		Com	32	• †	Canton, China
Kyger, Roy Jay		SS	35½	•	Danville
La Bahn, Paul Otto	SATC	Arch	•	• †	Chicago
La Bier, Clarence Russell	SATC	MdP	68	• †	Terre Haute, Ind.
Lacey, Clyde Manning	SATC	Com	19	•	Elgin
Lackland, Robert Evans	SATC	EE	72	• †	Morton
Lacy, Daniel George	SATC	ChE	•	•	Spring Valley
Lacy, Isham Laurence		MdP	•	†	Chicago
La Due, Mary Esther		SS	4½	•	Greenville
Lafferty, George Gustavus		SS	53½	•	Burgess
Lafuze, Donald Frazier	SATC	Agr	• † †	• † †	Liberty, Ind.

<sup>1</sup>"Enrolled" in the S.A.T.C., but not inducted.



Lager, Eric Willard	SATC	ME	66	•	†	Chicago
Laible, Russell James	SATC	Agr	101	•	†	Freeport
Laingor, Ralph Emerson	SATC	Agr		•	†	Casey
Lamb, Edith Jane, A.B., 1914		SS	134	•	†	Champaign
Lamb, George Sheldon	SATC	Com		•	†	Chicago
Lamb, Mary Nelda		HELAS		•	†	Bement
Lambert, Kathryn Mary		LAS		•	†	Arthur
Lambert, Robert Wayne	SATC	Agr	46	•	†	Rushville
Lambole, Harry Arthur	SATC	ME		•	†	Peoria
Lamken, Simon Roy	SATC	ME		•	†	Springfield
Lamkins, Mrs. Trenna Evans		LAS sp		•	†	Champaign
Lamme, Elizabeth Ann		LAS	86	•	†	Hiawatha, Kan.
Lampe, Herman Ernest	SATC	Agr		•	†	Venice
Lamport, Leonard Rollings	SATC	CE	32	•	†	Chicago
Lancaster, Allen H		SS	146½	•	†	Ridge Farm
Landesman, Ruth		Jnl	33	•	†	Minneapolis, Minn.
Landhy, Irwin Theodore	SATC	EE		•	†	Chicago
Landon, George		Law	30	•	†	Chicago
Landon, Lawrence Havens		AE		•	†	Chicago
Landsea, Oscar Edwin <sup>1</sup>	SATC	Chem		•	†	Chicago
Landstrom, Roy William		Agr (SS)	110	•	†	Chicago
Lane, Millard Earl	SATC	AE		•	†	Urbana
Langdon, Paul Eugene	SNTC	CE	72	•	†	Chicago
Langlois, Philip Alfred	SATC	LAS		•	†	Kankakee
Lanning, Alfred Stephens		Com	8	•	†	Richmond, Ind.
Lantz, Maurine Estelle		HELAS	61	•	†	Congerville
Lanum, Ralph Lewis	SATC	Com	5	•	†	Decatur
Lanz, William Peter	SNTC	ME	2	•	†	Chicago
Lapham, Miriam Margaret		HELAS	29	•	†	Dixon
Lapham, Ross Edwin	SATC	ME		•	†	Springfield
Larimer, Floyd Conway		Com	57	•	†	Oskaloosa, Ia.
Larry, Etta Cynthia		HEAgr		•	†	Champaign
Larson, Arthur Clarence	SNTC	EE		•	†	Chicago
Larson, Edward	SATC	Chem	58	•	†	Galva
Larson, Gilbert	SATC	EE		•	†	Geneva
Larson, Gladys Evangeline		Com		•	†	St. Anne
Larson, Lawrence Carl Gustaf	SATC	Com		•	†	Rockford
Larson, Paul Philip		Chem		•	†	Mason
Lasher, Clarence William	SATC	Com		•	†	Elgin
Lathe, Benjamin Reuel	SNTC	EE		•	†	Lyndon
Latkins, Herbert	SATC	LAS		•	†	Little Rock, Ark.
Latowsky, Carl Roda	SATC	Chem		•	†	Highland
Lattner, Ulysses Simpson	SNTC	ME	109	•	†	Rock Island
Laube, Otto Theodore	SATC	EE	72	•	†	Chicago
Lauder, Frances Carolyn		HELAS		•	†	Urbana
Lauer, Thomas Ayscough	SATC	Chem	7	•	†	Joliet
Lauher, Forrest Everette		CE		•	†	Brocton
Lause, Charles Joseph	SATC	Agr	25	•	†	Dayton, O.
Laux, William Edwin	SNTC	ME		•	†	Peoria
Laval, Marcelle Vere		LAS	80	•	†	Chicago
Lavelle, Charles Nathan	SATC	Com	26	•	†	Freeport
Lawder, John Francis	SATC	Com		•	†	Champaign
Lawrence, James Rollin	SATC	Jnl		•	†	Champaign
Lawrence, Thomas Maurice		Com		•	†	Springfield
Laws, Mary Josephine		SS Lib sp	8½	•	†	Kirkwood
Lawton, Mervin Cogswell	SATC	Com		•	†	Dixon
Lawton, Ruth		LAS		•	†	Hinsdale
Lazier, Wilbur Arthur	SATC	Chem		•	†	Rochelle
Lea, George Dewey	SATC	ME		•	†	Tiskilwa
Leach, Harvey Dean		SS	5	•	†	Sellersburg, Ind.
Leach, Paul Howard	SATC	LAS	5	•	†	Joliet
Leaman, Olga Edith		Mus sp		•	†	Owensboro, Ky.
Lear, Ralph Foster	SATC	Com		•	†	Tuscola
Lease, Stanley Harold	SATC	Agr		•	†	Plainville
Leavitt, Maurice	SATC	Com	29½	•	†	Chicago
Le Bosquet, Maurice, Jr.	SATC	MSE		•	†	Chicago
Lebowich, Eugene Douglas	SATC	Com		•	†	Oregon
Ledderboge, Clifford Harold		Com		•	†	Bloomington
Ledgerwood, Velma Thomas		EE		•	†	Macomb
Lee, Alfred Erwin	SATC	LAS		•	†	Rantoul
Lee, Arthur		Arch	111	•	†	Hudson
Lee, Fannie		HELAS	99	•	†	Reynolds
Lee, Florence		HELAS	33	•	†	Reynolds
Lee, Howard Ralph	SATC	ChE		•	†	Tamaroa
Lee, Mary		LAS		•	†	Aledo
Lee, Omer Volney		Law P sp		•	†	Danville
Lee, Sea Fong		SS	26	•	†	Hong Kong, China
Lee, Walter Bawden	SATC	Com		•	†	Chicago
Leedle, Jessie Miriam		LAS	103	•	†	West Chicago
Leeming, James Whitney	SATC	EE	61½	•	†	Chicago
Leeming, Mason Starring	SATC	EE	28	•	†	Chicago

<sup>1</sup> Deceased.<sup>2</sup> "Enrolled" in the S.A.T.C., but not inducted.

Leeming, Tom		Law	36	†	Chicago
Leete, Marion Elaine		LAS (SS)	97	†	Chicago
Lehman, Lloyd Wilbur	SATC	Law		†	Herscher
Lehmann, Frederick William	SATC	ME		†	Downers Grove
Lehmann, Gustav, Jr.	SATC	ChE	33	†	Chicago
Leibson, Jacob Sam	SATC	CerE	110	†	Chicago
Leichsenring, Jane Marie		HELAS	104	†	Winnetka
Leigh, Lester Ebenezer	SATC	Agr		†	Sparland
Leinbaugh, Howard Munroe, B.S., 1913		SS	6	†	Dallas City
Leinucker, Raymond Joseph	SATC	LAS		†	Quincy
Leitch, Neil McLean	SATC	MdP	66½	†	La Fayette
Lembke, Erwin Arthur	SATC	Com		†	Mascoutah
Lemenager, Earl Henry	SATC	LawP	26	†	Ashkum
Lemke, Harold William	SATC	Chem		†	Chicago
Lemmers, Ervin Guy	SATC	Com	28	†	Chicago
Lenane, Edward Hugh	SATC	ME		†	Quincy
Lent, Osa Lois		HELAS (SS)	67½	†	Chicago
Lentz, Leo Francis		Agr	54	†	Anna
Leonard, Edward Patrick	SATC	Jnl		†	La Grange
Leonard, Eunice Pearle		Mus	105	†	Rantoul
Leonard, Ruth Roberts		SS	6	†	Byron
Leonard, Veda Fern		LAS	101	†	Rantoul
Lesemann, Ralph Frederick	SATC	LAS	33	†	Nashville
Leslie, Mrs. Myra Henion		Mus	87½	†	Urbana
Lesung, Marion Rose		Arch		†	Urbana
Lester, Juanita Laura		LAS	32	†	Dallton City
Levinson, Ida		HELAS		†	Paxton
Levy, Beatrice Esther		LAS	98	†	Streator
Levy, Henry Kay	SATC	EE	25	†	Chicago
Levy, Undine		SS Lib sp		†	Amory, Miss.
Lewis, Alden George	SATC	Chem	69	†	Green Bay, Wis.
Lewis, Alfred James	SATC	LAS		†	East St. Louis
Lewis, Alfred Raymond	SATC	EE		†	Chicago
Lewis, Ardenia Mceee		HEAgr	63	†	Camp Point
Lewis, Franklin Spencer	SATC <sup>1</sup>	CE		†	Joliet
Lewis, Henry Foster, Jr.	SATC	Jnl	31½	†	Chicago
Lewis, James Mandell	SATC	ME		†	Wheaton
Lewis, Kenneth S	SATC	MdP	72	†	Whenton
Lewis, Leslie Porter		Agr		†	Joliet
Lewis, Marion Grace		LAS		†	Berwyn
Lewis, Martha Estine		LAS		†	Des Moines, Ia.
Lewis, Mary Louise		LAS		†	Des Moines, Ia.
Lewis, Robert George	SATC	Com		†	Waukegan
Lewis, Thomas Elwood	SATC	CE		†	Georgetown
Lewis, William Henry		Com	130	†	Granite City
Lewitan, Leo		ME	79	†	Chicago
Li, Hsiang Kai		ME	10	†	Weihwei, China
Liang, Ping		Com (SS)	109½	†	Washington, D. C.
Liang, Seong Ling		Com		†	Shanghai, China
Libman, Anita, A.B., 1918		LAS irr	131	†	Chicago
Libman, Bertholda Ehrlich		LAS		†	Urbana
Libman, Myer	SATC	ChE		†	Kansas City, Mo.
Lichtenberger, Cleo, B.S., 1911		Lib	14	†	Decatur
Lieberman, Arthur Abe		ChE		†	Chicago
Lieberman, Emmanuel Harold	SATC	EE	140	†	Cleveland, O.
Lies, Arthur Nicholas	SATC	ME	68	†	Chicago
Lietz, Paul James	SATC	Com		†	La Grange
Lieven, Fred Joseph	SATC	Com		†	Moline
Lifuendahl, Richard Axel	SATC	MdP	15	†	Chicago
Light, Mildred Elizabeth		LAS		†	Freeport
Lilienthal, Samuel		CE	113	†	Chicago
Lill, Edith Agnes		LAS		†	Chicago
Liller, Ruth Margaret		SS	8	†	Anna
Lilley, Robert W		ME	72	†	Aurora
Lilly, Helen Mabel		LAS		†	Berwyn
Lin, Kuan Hua		Com	16	†	Tieh-ling, China
Lincome, Arthur	SATC	Chem		†	Urbana
Linberg, Ruby Charlotte		LAS		†	Paxton
Lindgren, Edward Carl	SATC	Com		†	DeKalb
Lindholm, Karin Josephine		Agr	83	†	Elgin
Lindley, Bertrand Hollowell		MinE (SS)	42	†	Vicksburg, Miss.
Lindley, James Ralph	SATC	EE	22½	†	Marshall
Lindquist, Maurice Thea	SATC	Com		†	Chicago
Lindsay, Lawrence Jay		Agr	61½	†	Chicago
Ling, Feng Chi, A.B., 1914, B.S., 1915		ME (SS)	153	†	West Gate, China
Ling, Sing		SS	3	†	West Gate, China
Link, Louis John	SATC	CE		†	Chicago
Linke, Madge		HELAS		†	Seymour, Ind.
Linstrom, Vina Dorothea		LAS		†	Assumption
Lipe, Raymond Caspar	SATC	ChE		†	Chicago
Lipman, Oscar Philip	SATC	Arch		†	Chicago
Lippens, Richard Charles	SATC	ME		†	Kewanee

<sup>1</sup>"Enrolled" in the S.A.T.C., but not inducted.

Liska, Emil	SATC	ME		•	Chicago
Little, Harry Robert	SATC <sup>1</sup>	Com		•	Indianapolis, Ind.
Little, Mrs. Julia Bush		Mus	11	† †	Champaign
Littmann, Edwin Robert	SNTC	ChE		• † †	St. Louis, Mo.
Littrell, Donald Bennett		AE	55½	† †	Springer, N. M.
Livermore, Odgen	SATC	ChE		• † †	Chicago
Lively, Burke John	SATC	LAS		•	Walnut
Livingston, Mrs. Kate Hope		LAS (SS)	113½	† †	Champaign
Livingston, Thomas Morgan	SATC	Agr	72	† †	Minonk
Llewellyn, Dorothy Kullick		LAS	59	† †	Kahoka, Mo.
Llewellyn, Marie Edith		LAS	67	† †	Prophetstown
Llewellyn, Pauline		MdP	36	•	La Grange
Llewellyn, Rossiter Summy	SATC <sup>1</sup>	Com		• † †	La Grange
Lloyd, Lawrence Duncan	SATC	LAS (SS)	75½	• † †	Callin
Lochner, David Marion	SNTC	CE		•	Ft. Wayne, Ind.
Locke, George Ferguson		AE	91	†	LaSalle
Lockwood, Arthur Ted	SATC	ME		•	Chicago
Loeb, Hamilton Mortiz		Com	22	•	Chicago
Loflin, Margaret Kathrine		LAS		• † †	Champaign
Lofquist, Gerald Albert		ME	75	† †	Chicago
Lofton, Floyd William	SNTC	Com		•	Peoria
Logan, Francis William	SATC	ChE		•	Joliet
Lokke, Oscar	SATC	LAS		•	Chicago
Long, Alice May		SS	1	•	Urbana
Long, Harry Maxwell	SATC	Chem		•	Middletown
Long, Maude		LAS	27	•	Urbana
Long, Samuel Parks	SATC	Chem	37	• †	Springfield
Long, T M	SATC	Com		• †	Butler, Ind.
Long, Vernon		SS	5	•	Mt. Auburn
Longden, Ruth Agnes		SS Lib sp		•	Kalamazoo, Mich.
Longenotti, Augustas La Cari	SATC	Com		• † †	St. Louis, Mo.
Loomis, Agnes Brooks		LAS	31	• † †	Chicago
Loomis, Donald Byrns	SATC	Agr	32	• † †	Galva
Loomis, Emily Fidelia		LAS	69	• † †	Chicago
Loomis, Oliver King	SNTC	LAS		• † †	Makanda
Lopez, Leonor		LAS (SS)	61	• † †	Champaign
Lorance, Medford G	SNTC	ME		•	Robinson
Lord, Marian Dorothy		SS	6	•	Paris
Lord, Philip Shumway	SATC	Com	36	• † †	Evanston
Lorentz, Robert William		Arch	59½	• † †	Chicago
Losee, Donald Maynard		ChE	66	• † †	Chicago
Losee, Isabelle Martha		LAS	30	• †	Chicago
Loughran, Francis Joseph	SATC	Chem		•	Joliet
Louis, Herbert Joseph		ChE		• † †	Chicago
Lourash, Percy David		Agr	46	• † †	Champaign
Love, Irene Leora		Com	31	• † †	Urbana
Love, John Joseph		ChE		• † †	Newton
Love, William Cyrus	SATC	EE		•	Edwardsville
Lovejoy, Charles Ernest, Jr.	SATC	Com	68	• †	Chicago
Lovell, Beatrice Babcock		LAS (SS)	102	• †	Gibson City
Lovett, Robert Fillmore	SATC	ChE (SS)	34	• † †	Urbana
Lowe, Chinghsi Hiram		Agr (SS)	76	• † †	Chinguantao, China
Lowe, Lucy		Mus	27	• † †	Urbana
Lowes, Mary Elizabeth		Jnl		• † †	Chicago
Lowitz, Jack		Com	71	• † †	Chicago
Lowry, Adelaide Louise		LAS		• † †	Champaign
Lowry, Bessie, A.B., 1917		Lit	32	• † †	Lead, S. D.
Lowry, Eva Marie		LAS		• † †	Champaign
Lowry, John Colborn		CE		•	Gibson City
Lu, Shou Cheng		Jnl	105	†	Washington, D. C.
Luba, George Stephen		SS	7½	•	Pueblo, Colo.
Ludvik, William	SATC	ChE		•	Chicago
Luer, Harry Arthur	SNTC	Agr	27	• † †	Alton
Lueth, Harold Albert	SATC	ME	22	•	Kankakee
Luhnaw, Lester A		Agr		• † †	Oak Park
Lukacs, Joseph Martin		Com		•	Pawnee
Lukan, Joseph Rudolph	SATC	Com		•	Seatonville
Lukens, Mrs. Ethel Adams		Mus	62	†	Champaign
Lull, Julian Richard		ME	37	• †	Evanston
Lum, Chung Yan		Com		• † †	Canton
Lumley, Arlene		LAS (SS)	102½	• † †	Urbana
Lumley, Dorothy Elizabeth		Chem (SS)	51	• † †	Urbana
Lummis, Joseph Gray	SATC	Com	35	• † †	Quincy
Lund, Harold Henry	SATC	ChE		•	Rockford
Lundberg, Bruce Gurler		Agr	119	† †	DeKalb
Lundberg, Henry Gurler		Agr	112	†	DeKalb
Lundgren, Arnold Alinder		CE	107	•	Rockford
Lundy, Gladys Evelyn		HEAgr		• †	Chicago
Lurie, Harold Hiram	SATC	ChE	2	•	Chicago
Lusk, George Helenus		LAS		• † †	Wilmette
Luster, Julian Jay	SATC	LawP	34	• † †	Chicago
Luther, Caroline, A.B., 1912		SS	134	•	Savoy

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Luther, Harry Halton	SS	39½	•	Urbana
Luther, Ida Louise	Mus sp		•	Champaign
Luther, Wilhelmina Caroline	LAS	75	•	Champaign
Luther, Annabelle	Mus sp	7	•	Gilman
Lutz, Carl Walter	SATC	2	•	Evansville, Ind.
Lyddon, Bert	SNTC		•	Rockford
Lyddon, Berrest Arnold	Arch		•	Rockford
Lytle, Aline	Jnl		•	Chicago
Lynch, Helen Charlotte	Com	66	•	Mattoon
Lynd, Joseph Merle	SATC <sup>1</sup>		•	Springfield
Lyons, Lewis Edmund	Com	77	•	Decatur
Lyons, Emily Margaret	LAS	96	•	Carthage
Lyons, Stuart Wellington	SATC		•	Chicago
Lyons, Chester Shearer	SATC		•	Brook, Ind.
Lyons, Ernest Lee	SATC		•	Waterly
Lyons, Ethel Dorris	SS		•	Champaign
Lyons, George Wade	SNTC		•	Chicago
Lyons, Lillian Helen	LAS (SS)	90½	•	Urbana
Lyons, Paul Lafayette	SATC		•	Marion
Lytle, Florence May	LAS		•	Urbana
Lytle, Maria Marie	SS	8½	•	White Hall
Lytle, Mervyn Quincy	SATC	34	•	Quincy
McAllister, James Russell	SATC		•	Waterman
McAllister, Raymond James	SATC		•	Streator
McAlpin, Mark L	SATC		•	Marion
McAnally, Marian Pace	LAS	67	•	Carbondale
McArthur, James Vernon	SNTC		•	Sullivan, Ind.
McBrian, Charles Christopher	SATC		•	Mt. Vernon
McBroom, Frank Leslie	SATC	32	•	Woodstock
McCabe, Marie Belle	LAS	7	•	Pontiac
McCabe, Orville Paul	SATC		•	Brook, Ind.
McCammon, John William	L&P	8	•	Urbana
McCaun, Franklin Adams	LAS		•	Quincy
McCarrel, Neil Charvsep	EE		•	Kinderhook
McCarthy, Cecelia Mary	LAS (SS)	44	•	Champaign
McCarthy, Harold Berkeley	CE		•	Riceville
McCaskill, Harold	HELAS		•	Champaign
McCaskill, Valden Maurice	Ag	43	•	Champaign
McCaskin, Gladys Bernice	LAS	66	•	Champaign
McCaulley, Raymond Francis	SATC	10	•	Chicago
McCaull, Mary Edna	LAS	105	•	Chicago
McCay, Olive Maine	SNTC	75	•	Kansas City, Mo.
McClelland, Adella Burton	Chem		•	Crawfordsville, Ind.
McClelland, Ralph Lester	Com (SS)	35	•	Clinton
McClintock, Walter Leslie	ME	37	•	Western Springs
McClintock, Helen	SNTC		•	Nahma, Mich.
McClure, Earl Wesley	EE		•	Chicago
McClure, Muriel Ruth	SATC	34	•	Van Wert, O.
McCluskey, Thomas Frank	SS		•	Abingdon
McColum, Bessie	SATC	17	•	Owaneco
McColum, Katherine Mae	SS	6½	•	Galesburg
McCorm, Eugene Miller	SS	7	•	Galesburg
McConnell, Marion	SATC		•	Pontiac
McConnell, Estle Marion	HELAS	98	•	Indianapolis, Ind.
McConnell, Helen Evelyn	SATC		•	Warsaw
McConn, James Robinson	LAS	67	•	Champaign
McCord, Leslie Ira	SATC <sup>1</sup>		•	Blue Island
McCord, Leslie Ira	SATC		•	Blue Island
McCormack, Mildred Galusha	Com	1	•	Pekin
McCormack, Harriet Eunice Elliott	SS Lib 12		•	Pekin
McCormick, Paul Herbert	LAS	113	•	Peoria
McCormick, Robert Sudduth	SATC		•	Vernon
McCray, Marian Verle	Ag		•	Normal
McCreary, Elsie	LAS	60	•	Fiskian
McCreary, Florence Maude	SS	5	•	Thompsonville
McCreary, Mary Frances	SS	7	•	Thompsonville
McCreary, Virginia F.inger	LAS	74	•	Rushville
McCullough, Robert Cascoed	HELAS	15	•	Rushville
McCumber, Floyd Miller	SATC		•	Marseilles
McCurdy, Harry Henry	SATC		•	Camargo
McCutchen, Helen Elizabeth	SATC		•	Marseilles
McDaniel, James Pilmore	LAS (SS)	55½	•	Marseilles
McDavid, David Carl	LAS	60	•	New Boston, Ia.
McDavid, John Solomon	SATC	7	•	St. Louis, Mo.
MacDonald, Pessie	SS	32	•	East Peoria
MacDonald, Carol Russell	SATC	15	•	Hillboro
MacDonald, Earl George	SATC <sup>1</sup>		•	Chicago
MacDonald, Edgar Joseph	SATC		•	Arthur
MacDonald, Edmund Urban, A.B., 1915	AE	66	•	Chicago
MacDonald, Edward Carroll	SS	12½	•	Chicago
MacDonald, George	SATC		•	Decatur
MacDonald, James Joseph	SNTC		•	Bloomington
MacDonald, Joseph Nelson	SATC		•	Chicago
	LAS	169	•	Clinton, Ind.
			•	Chicago

<sup>1</sup> "Enrolled" in the S.A.T.C., but not inducted.

MacDonald, Leslie Herbert	SNTC	Agr	•	•	•	Tricoli
McDonald, Robert Pierce	SATC	Com	•	•	•	St. Louis, Mo.
McDonald, Thomas Chesley Francis	SATC	Agr	26½	•	•	Chicago
McDonald, Vernie Brown	SATC	LAS	•	•	•	Roscoe
McDonough, Cecil Paul	SATC	Com	•	•	•	Milford
McDonough, Thomas	SATC	ME	•	•	•	Urbana
McDougall, Angus Hugh	SATC	ME	•	•	•	Chicago
McDougall, Bertha Galie	HELAS		09	•	•	Petersburg
McDougle, Ella Moore	Agr		26	•	•	Humboldt
McDowell, Clarence Norman	SNTC	EE	•	•	•	Robinson
McDowell, John Keeney	Agr		73	•	•	Kankakee
McDowell, Mary Kathleen	LAS		•	•	•	Robinson
McDowell, Merritt Dewey	SATC	Com	31	•	•	Centralia
McEldowney, Homer Irving	Com		2	•	•	Chicago Heights
McEldowney, William Earle	Com		74	•	•	Chicago Heights
McElfresh, Paul Cliff	SATC	Com	•	•	•	Westfield
McElhiney, Helen Catherine	LAS		63	•	•	Kenney
McEuen, Miner Albert	SATC	ME	19	•	•	Chicago
McEwen, Cecil Ray	SATC	ME	35	•	•	McComb, Miss.
McEwen, Scott Alvin	EE		•	•	•	Sheldon
McFadden, Belle Lorraine, A.B., 1897	SS		•	•	•	Champaign
McFarland, Charles Lee	SATC	Agr	•	•	•	West Chicago
McFarland, Clyde Miles	SATC	CE	•	•	•	Rockford
MacFayden, Carleton Greenwood	SS		•	•	•	Attica, Ind.
McGaughey, George Samuel	SATC	LawP	•	•	•	Stanton
McGeehee, Wilbur	Agr		59	•	•	Urbana
MacGillivray, John Henry	SNTC	Agr	35	•	•	Urbana
McGinnis, Albert Henry	Agr		28	•	•	Mendota
McGinnis, Charles Allen	SS		30½	•	•	Reeseville
McGinnis, Gordon Fiske	SATC	CE	•	•	•	Aurora
McGlynn, John J	SS		9½	•	•	Alton
McGovern, Charles Eugene	SATC	MdP	•	•	•	Spring Valley
McGraw, Katherine Leslie, A.B., 1914	Lib		44	•	•	Urbana
McGregor, Charles Duncan	SATC	Com	30	•	•	Oskaloosa, Ia.
McGregor, Marian Craig	HELAS		63½	•	•	Rockford
McGuire, Arthur Thomas	SATC	Com	•	•	•	Danville
McGuire, Donald David	CE		37	•	•	Aurora
McInnes, Sterling Joseph	SATC	ME	•	•	•	Sidney
McIntire, Leo Glenn	SATC	Com	62	•	•	Potomac
McIntire, Mary Minerva, A.B., 1906	SS		•	•	•	Urbana
McIntyre, Daniel P	Agr sp		•	•	•	Champaign
McIntyre, Genevieve	SS		•	•	•	Hanover
McIntyre, Robson Duncan	SATC	Com (SS)	34½	•	•	Wilmington
McKay, Ernest Gladstone	Agr		61	•	•	Wheaton
McKay, Lewis Pound	Com		36	•	•	Wheaton
McKee, Leroy Herbert	SATC	ME	•	•	•	Kankakee
McKeen, Joseph Strong	SATC	LAS	•	•	•	Terre Haute, Ind.
McKeever, Thomas	SATC	Com	•	•	•	Chicago
McKelligott, William	SATC	Com	•	•	•	Shawneetown
McKelvey, Harold Birch	SATC	MdP	•	•	•	Moline
McKeown, Joseph James	SATC	Agr	•	•	•	Marengo
McKeown, Thomas Shanks	SATC	AE	•	•	•	Chicago
McKevitt, Martin Owen	Com		9½	•	•	Blue Island
McKinley, Fowler E	SATC	CE	•	•	•	Oaden
McKinley, George Dewey	SNTC	ChE	•	•	•	Elmwood
McKinney, John Keryl	Com		33	•	•	Clinton
McKinney, Mary Katherine	Com		•	•	•	Rock Island
McKnight, Elda Marie	HELAS		117	•	•	Hiawatha, Kan.
McKown, Willa Pauline	LAS		•	•	•	Monica
McLain, William Douglas	SATC	ChE	•	•	•	Springfield
McLarty, Alfred Dewey	SNTC	LawP	•	•	•	Harvey
McLaughlin, George Southwell	EE		104½	•	•	Washington, D. C.
McLaughlin, James Patrick	SATC	Com	•	•	•	Auburn
McLaughlin, Maude Katherine, A.B., 1909	Lib		34	•	•	Toledo, O.
McLean, Alice Edna	HELAS		74	•	•	Jewell, Kan.
McLean, Angus Donald	Com		59	•	•	New Albany, Ind.
McLeish, Orlyn Oliver	SATC	LAS	38	•	•	Rockford
McLennan, William Jackson	SATC	Agr	•	•	•	Toulon
McMahan, Elsie Margaret	Com (SS)		67½	•	•	Jerseyville
McMahon, Edward Laurence	SATC	LAS	56½	•	•	Lacon
McMahon, Russell	SS		4½	•	•	Waverly
MacMaster, Archibald Kenneth	SATC	CerE	•	•	•	Chicago
McMillan, Alfred Edward	SATC	LAS	•	•	•	Centralia
McMillan, John Charles	SS		20½	•	•	Alledo
McMillan, Keith Evan	SNTC	ME	•	•	•	Taylorville
McMillan, Louis William	SNTC	Agr	31½	•	•	Macomb
McMullen, Agnes Margaret	LAS sp		•	•	•	Champaign
McMurray, Fannie Marie	LAS		97	•	•	Divernon
McMurray, Hayward Thomas	LAS		•	•	•	Divernon
McNally, Andrew	SNTC	MdP	33	•	•	Chicago
McNally, James Henry	SATC	Com	•	•	•	Lincoln

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McNaughton, Clayton Archibald	Com	101½	* † †	Urbana
McNish, David Thornley	Agr	93	† † †	Gary, Ind.
McNutt, Wilma Lee	HELAS	63	†	Lacon
McPherson, Robert Philip	SATC		•	Chicago
McQueen, Harold George	SNTC	74½	* † †	Missouri Valley, Ia.
McQueen, Harry Alfred	SNTC		•	Elgin
McQuinn, Ralph Tolivar		57	†	Salem
McQuiston, Carryl Sampson	SATC		•	East Chicago, Ind.
McReynolds, Alvin Louis	LAS sp		†	Chicago
McRoberts, James Joseph	SATC	22	•	Hebron
McShea, Gladys Eleanor	LAS	64	† † †	Owaneco
McVay, Esther Lee	LAS	28	† † †	Barry
Macdonald, James Wear	SATC		† † †	Evanston
Macfarland, William Andrew, Jr.	SATC		•	Chicago
Mackey, Dorothy Ward	HELAS	88	* † †	Plankinton, S. D.
Mackey, Ruth Clarissa	SS	4		Durant, Okla.
Madden, James Francis	SATC		•	Rock Island
Madden, William Dillon James	SS	18½		Cincinnati, O.
Maddox, Charles Eugene	SATC		•	Chicago
Maddox, Notley Sinclair	SATC		• † †	Clayton
Maddy, Leonard Willard	SATC		•	Karnak
Madison, Arthur Elmer	SATC	21½	†	St. Louis, Mo.
Magers, Elizabethers Julia	HELAS	105	† † †	Marquette, Mich.
Magers, Mildred Kirtland	LAS		† † †	Marquette, Mich.
Magill, James Glen	SATC		†	Flora
Magnuson, Dell Martin Enoch	Chem	31	* † †	Chicago
Maguire, Mary Josephine	SS	71½		Alton
Maiden, Darrell Edward	SNTC		•	West Chicago
Main, Owen James	SNTC		• † †	Casey
Mair, George Nathan	SATC		• † †	Chicago
Maitland, Edna Estelle	HELAS	63	† † †	Joplin, Mo.
Makepeace, Frank George	SNTC		† † †	Kansas City, Mo.
Malcolmson, David Krause	MinE	70	† † †	Kansas City, Mo.
Malecki, John Daniel	SATC	17	† † †	Oak Park
Malkmus, William	SATC	33	† † †	Kansas City, Mo.
Mallers, Edward Benjamin	LAS	8	† † †	Chicago
Mallers, John Bernard III	Com	63	† † †	Chicago
Mallory, Francis Bolton	LAS	66	† † †	Batavia
Mallory, Mrs. Lois Evans	LAS (SS)	97	† † †	Batavia
Mallow, Gladys	Com sp		†	Urbana
Malloy, Francis Bernard	SNTC		•	Decatur
Malnar, Anna Theresa Frances	Chem		† † †	Ruiland
Maloney, Frances Josephine	LAS	58	† † †	Decatur
Malsbury, Marshall Raymond	Agr	64½	† † †	Virden
Mandel, Arthur	SATC		•	Chicago
Mandeville, Merten Joseph	Com	79	†	Terre Haute, Ind.
Mangold, Majorie Alice	HELAS		•	Anna
Mangold, Priscilla Alden	HELAS	25	†	Anna
Manguson, Maude Beatrice	Mus	99		Oско
Manley, Verna Adeline	Mus sp	10	† † †	Champaign
Mann, Almon Raymond	SNTC		† † †	Shumway
Mann, Clair Tambllyn	SATC	30	† † †	Manteno
Mann, Donovan Voorhees	SATC	31	† † †	Urbana
Mann, Edna Frances	HELAS	112½	† † †	Oak Park
Mann, Mary Fidelia	HELAS	31	† † †	Sullivan, Ind.
Mann, Shirley	HEAgr	65	† † †	Kankakee
Mann, William Gray	SS		•	Green Sulphur, W. Va.
Manny, Frederick Hugh	SATC		•	Mt. Sterling
Manny, Theodore Bergen	SS	115	† † †	Chicago
Manny, William Lincoln	SATC		† † †	Chicago
Mansfield, Charles Wendell	SATC		† † †	Downellson
Manspeaker, Caroline Elizabeth	Com	67	† † †	Champaign
Maphis, Ormer Benjamin	SS Lib sp		•	Chicago
Marcellus, Laurence Keith	SATC		•	Belvidere
Marcott, Bessie Foster	HELAS		† † †	Decatur
Marfleet, Gerald Jewett	SATC		† † †	Rock Falls
Margrave, William Bagby	ChE		† † †	Thebes
Margrey, Clyde Sylvester	SATC		† † †	Onarga
Marinoff, Hyman	SATC		† † †	Chicago
Markel, Raymond Paul	SATC		•	Virginia
Marks, Anna Edith	LAS	99	† † †	Dixon
Marley, George Wayne	SNTC		† † †	Trinity Springs, Ind.
Marquis, Vincent Brush	EE	72	† † †	Bloomington, S.
Marsh, Bessie Ellen	ChE	66	† † †	Champaign
Marsh, Mary Elizabeth	HEAgr		† † †	Vincennes, Ind.
Marshall, Floyd Samuel	Com		•	Wilmingon
Marshall, William Forman	SATC		•	Belknap
Martin, Ada North, A.B., 1915	SATC		† † †	Madison, Wis.
Martin, Ava Eugenia	Mus	2	† † †	Odin
Martin, Brice Burnell	HELAS		•	Sullivan
Martin, Bruce Crittenton	SATC		•	Chicago
Martin, Daisy Moore	SNTC		† † †	Champaign
Martin, Everett Kirby	LAS	89½	† † †	Oak Park
Martin, Harold Houston	Com	6	† † †	Missouri Valley, Ia.
Martin, Harry Le Roy	SATC		•	Morris

Martin, James Wright		LAS		•	Chicago
Martin, Ralph	SATC	LAS		•	La Porte, Ind.
Martin, Russell Read		LAS		• † †	Mound City
Martin, Ruth Elizabeth, A.B., 1914		Lib		•	Omaha, Neb.
Martin, Ruth Lucille		LAS		• † †	Milford
Martino, James Frank	SATC	Com	33	• † †	Dallas, Tex.
Martins, Djalma Varella		LAS	36	• † †	Sao Paulo, Brazil
Marvel, Sadie Marie		LAS	40	• † †	Waynesville
Marvel, Walter Charles	SATC	Com		•	Lane
Marx, Arthur William Kuhs		LAS	133	• † †	St. Louis, Mo.
Marx, Elmer Edward		Com	76½	• † †	St. Louis, Mo.
Marx, Elmer William	SATC	Arch	35	• † †	Chicago
Marx, Henry Joseph Kuhs		MSE	3	• † †	St. Louis, Mo.
Marx, Milton Reuben		AE	3	• † †	Chicago
Masacek, Adolph James	SATC	ChE		•	Chicago
Mashek, Edward Joseph		LAS		•	Collinsville
Mason, Earl Greenfield	SATC	CE	30	• † †	Astoria
Mason, Harold Emory	SATC	EE		•	Marceline, Mo.
Mason, James Bryant		MdP	31	• † †	Urbana
Mason, Rodney Starkweather	SATC	LAS	31	• † †	Highland Park
Massey, Harvey Vernon	SATC	LAS		•	Morris
Massey, Henry Laurens		Com	93	• † †	Little Rock, Ark.
Massock, Richard Gilbert	SATC	Law		• † †	Illioopolis
Masters, Blanche Leona		SS	3½	•	Urbana
Math, Mrs. Ester Nelson		LAS	111	• †	Barry
Mather, Harold Shaeffer	SATC	CE		•	Brook, Ind.
Mathews, Robert Cyrus	SATC	Agr		•	Yates City
Mathewson, Edward Luther	SATC	Agr		•	Milford
Mathey, Charles Edward	SATC	ME		•	Galena
Mathis, Oscar Jacob	SATC	Arch	34	•	Morton
Matson, Frances		SS	6½	•	Alexis
Matsuda, Sensusuke		Agr	35	• † †	Yanaguchiken, Japan
Matteson, Blanche Margaret		Com		• † †	Pueblo, Colo.
Matthew, Helen		HELAS		• † †	Anderson, Ind.
Mauer, Gordon Walter	SATC	Com		•	Joliet
Maung, Tharrawaddy Maung		ChE	64	• † †	Rangoon, Burma
Maurer, Charles Brand		LAS	53	• † †	Champaign
Maurer, Frederick Gottlieb		Com	69	• † †	Chicago
Maxfield, Elizabeth Almond		Chem (SS)	56	• † †	Palmyra
Maxfield, Lucile Carolyn		LAS	9	• † †	Palmyra
Maxwell, Clyde Everett, Jr.		Agr (SS)	104½	•	Buffalo, N. Y.
Maxwell, Vance Samuel	SATC	EE		•	Chicago
May, Louis, Jr.	SATC	Com		•	Edwardsville
May, Mabel Edith		LAS	26	• † †	Chicago
May, Olen Edgar	SATC	ME		• † †	Newton
Mayer, Adolph	SATC	ME		•	Chicago
Mayhue, Don Waters	SATC	EE	37	• † †	Palestine
Maynard, Clyde Howard	SATC	LAS		•	Sumner
Maynard, Elsdon Lyman		Com	44	• † †	Chicago
Maynard, Stephen Baker, Jr.	SATC	Com		•	Chicago
Mead, Dayton Richard	SATC	EE	2	• † †	Grand Rapids, Wis.
Meade, Ehrma Pauline		LAS	71	• † †	Champaign
Meador, Arthur James	SATC	EE		•	Joliet
Meads, Richard Leon	SATC	CE		•	Benton
Means, Walker Wilson	SATC	CE	114	• † †	Urbana
Meckenstock, Carl Edwin	SATC	ChE		•	Ottawa
Mecum, Chester Orie		LawP		•	Bowen
Meder, Everett Stanley	SATC	ME	36	• † †	Joliet
Meder, John O'Connor		Com	49	•	Chicago
Medlar, Henrietta Cornelia		SS	130	•	Omaha, Neb.
Meehling, Fred William	SATC	Agr		•	Marshall
Mehl, William	SATC	ME		•	Chicago
Meier, Henry John	SATC	ME		• † †	Crete
Meints, Griffith	SATC	Com		•	East St. Louis
Meland, Bernard Eugene	SATC	Com		•	Homewood
Melington, Philin Rolland		Com	67½	• †	Chicago
Melchert, Oscar Fred	SATC	ME		•	Ryan, Ia.
Melin, Florence Lucile		LAS		• † †	Chicago
Melin, Ralph Norton		Agr	44	• † †	Chicago
Mellon, Eugene Harvey	SATC	CE		•	Barry
Meloy, Martha Lucile, A.B., 1917, A.M., 1918		SS	8	•	Hoopeston
Melton, Presley Warren		CE	8½	• † †	English, Ind.
Meltzer, Hyman	SATC	Chem	39	• † †	Bayonne, N. J.
Meltzer, Louis	SATC	MdP	38	• † †	Bayonne, N. J.
Melzer, Bertha Lucile		LAS (SS)	5	• † †	Belvidere
Meneley, Ollive Myrtle, B.M., 1916		SS	146	•	Champaign
Menke, Ralph John	SATC	Com		•	Quincy
Mercer, Marion	SATC	ChE		•	Indianapolis, Ind.
Mercer, William Mark	SATC	Com		•	Aurora
Merchant, Althea Amayllis		LAS	61	• † †	St. Louis, Mo.
Meredith, Lucile		LAS		• † †	Champaign

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Meridith, Harold Everett	SATC	Agr		* †	Monmouth
Merker, David Felmley		Agr	70	†	Belleville
Merriam, Theodore Howard	SNTC	Agr	28	†	La Grange
Merrills, Virginia		LAS	107	†	Belleville
Merriman, Forrest Dewey	SATC	Com		†	Compton
Merryman, Mrs. William Walter		HEAgr sp	27	†	Urbana
Messan, Edward Joseph	SATC	MdP		†	Chicago
Messamore, Ford	SATC	LAS		†	Jonesboro
Messinger, Earle Philip		ME		†	New Canaan, Conn.
Metcalf, Edward Wilcott	SATC	Com		†	Elgin
Metcalf, Herbert Walter	SATC	EE	30	†	Wichita, Kan.
Metz, Edna Mary		SS	73	†	Tolono
Metz, Velma Marie		Com		†	Champaign
Metzger, Albert Ulrich	SATC	ME		†	Vandalia
Metzger, John George	SATC	ME		†	Shobonier
Metzler, Leland Cleo	SNTC	Com		†	Shelbyville
Metzler, Ralph Oliver		Com	97	†	Decatur
Mewes, Frederic Theodore		CE		†	Golden
Meyer, Clarence Herman	SATC	Chem		†	Quincy
Meyer, Emily Albert		Agr		†	Mt. Sterling
Meyer, Fred Ernest	SNTC	ME		†	Forest Park
Meyer, Frederick William, Jr.		LawP	63	†	Kansas City, Mo.
Meyer, George Leo Nicholas		ME	51½	†	Milwaukee, Wis.
Meyer, Glenn Logan	SATC	Com		†	Beardstown
Meyer, Harold Engler	SATC	Law (SS)	22	†	Havana
Meyer, Helen Florence		HELAS		†	Hickland
Meyer, Logan Glenn	SATC	Com		†	Beardstown
Meyer, Ralph Theodore	SATC	Com		†	St. Louis, Mo.
Meyer, Raymond	SATC	ME		†	Havana
Meyer, Ruth Whitney		HELAS	67	†	Carroll, Ia.
Meyer, Walter Howard	SATC	Com		†	Pekin
Meyer, Walter Rae	SATC	LAS	39	†	Springfield
Meyernhoff, Howard Augustus	SATC	LAS	93	†	Alton
Meyers, Fred William, Jr.		Com	26	†	Wheaton
Meyers, Joseph Ormond	SATC	LAS		†	Henry
Meyers, Leo Laurence	SATC	ME		†	Sheridan
Meyers, Marguerite		LAS (SS)	101	†	Belvidere
Meyers, William Earle	SNTC	ME		†	Oblong
Mezek, Frank William	SATC	CE	35	†	Chicago
Michael, Edward Herschel		SS	5½	†	Shumway
Michael, William Mantford		LawP	66	†	Champaign
Michaelree, John Holland	SATC	Com		†	Efingham
Michel, Irene Eleanor		LAS	62	†	Elmhurst
Michel, Eric Herman		EE	30	†	Oppurg, Germany
Middleton, Edward Elias	SATC	Com	28	†	Chicago
Middleton, Errol Bathurst	SATC	LAS	106	†	Victoria, Tex.
Middleton, George Eugene		Agr	41	†	Chicago Heights
Middleton, Wayne	SATC <sup>1</sup>	CE	57½	†	Victoria, Tex.
Mies, Leo Jarlath	SATC	Agr		†	Pontiac
Mizell, Albert Thomas	SATC	Agr	32	†	Aurora
Milaszewicz, Bernard Vincent		EE		†	Chicago
Milby, Edward Settles	SATC	ME		†	Rushville
Milemore, Paul Harold	SATC	Agr	17	†	Danville
Miles, Josephine Kingston		LAS	60	†	Peoria
Miles, Leon Rolffe	SATC	Agr		†	Walnut
Miles, Spurgeon Browning	SATC	Com		†	Arthur
Miller, Alta Marie		SS	26	†	Nokomis
Miller, Anna May		LAS	99	†	Champaign
Miller, Bertie Ethel		SS	24½	†	Westfield
Miller, Carl Roscoe		Jnl (SS)	61	†	Mulberry Grove
Miller, Clifton Warner		CE	37	†	Cairo
Miller, Duane Smith	SATC	CE		†	Albany
Miller, Earl Alenzo	SATC	Agr	8½	†	Dundee
Miller, Elmer Marshall		ME	28	†	Chicago
Miller, Flossie Anna		Mus	32	†	Villa Grove
Miller, Frank Joseph		Agr		†	Paw Paw
Miller, Fred Christian	SATC	LAS		†	Eransville, Ind.
Miller, Garnett O'Bryan		Mus		†	Champaign
Miller, Harold Hammond		LawP		†	Champaign
Miller, Harold Thomas		SS	65	†	Eurlington, Ia.
Miller, Hazel Cloah		Mus (SS)	47	†	Champaign
Miller, Horace Shubert	SATC	LAS		†	Philadelphia, Pa.
Miller, Joseph Gilman		Com	100½	†	Chicago
Miller, Karl Hansen	SATC	ME	32	†	Green Bay, Wis.
Miller, Kenneth Hollowell	SATC	Com		†	Springfield
Miller, Kenneth William		EE	114	†	Decatur
Miller, Laura Louise		Jnl	2	†	Chicago
Miller, Louis Joseph		CE	5½	†	Chicago
Miller, Marion Alice		HELAS		†	Shipman
Miller, Mary Alexina		SS Lib sp		†	East Litterpool, O.
Miller, Melville Arnold	SATC	Com		†	Elgin
Miller, Milton Joy	SNTC	LAS	30	†	Chicago

<sup>1</sup> "Enrolled" in the S.A.T.C., but not inducted.



Miller, Myrtle Mae		LAS		* †	Centralia
Miller, Oliver David		Agr		* †	Princeton
Miller, Virden Leon		Com		* †	Milford
Miller, Virginia Agnes		LAS	98	* †	Galva
Miller, Wilbur Glenn	SATC	AE	72	* †	Jerseyville
Miller, William Joseph		Agr	10½	* †	Jacksonville
Milligan, Kenneth William	SATC	ME		*	Kewanee
Milliken, James Douglas	SATC	Agr	49	*	Walnut
Milliken, Walter Beale		MdP	32	*	Little Rock, Ark.
Mills, Beulah Ozeta		Mus sp		* †	Urbana
Mills, Epler Cadwell		Law	42	* †	Virginia
Mills, Kenneth Entz	SATC	LAS	29	* †	Chillicothe
Mills, Martha Mendenhall		HELAS	73	* †	Marion, Ind.
Mills, Morton Joseph	SATC	MdP	40	* †	Chicago
Mills, Ralph Joseph		Com	22	* †	Oak Park
Millspaugh, Mabel Augusta		LAS	29	* †	Keokuk, Ia.
Milner, George Ellsworth	SATC	Com	34	* †	Plymouth, Ind.
Milton, Rudolf Carl	SATC	CE		*	Chicago
Miner, Chester	SATC	Agr		*	Champaign
Miner, George		Com		* †	Champaign
Miner, Helen Nellora		Chem	92	* †	Adair
Miners, Verne Thomas	SATC	CE		* †	Rockford
Minier, John Forrest	SATC	CE		*	Walnut
Mink, James Vantine	SATC	CE		*	Elgin
Minks, Freda Heyer		HELAS	50	*	Dewey
Minturn, Emily Pauline		LAS		* †	Tuscola
Miranda, Octacilio		MinE	49	* †	Para, Brazil
Misener, Glenn Edgar	SATC	ME	63	* †	Berwyn
Missimer, Dale Johnson		ME	40½	* †	Urbana
Missimer, Mrs. Dale Johnson		HEAcr		* †	Urbana
Mitchell, Arzord Allmore		SS	7		Champaign
Mitchell, Florence Ferne		SS	38		Urbana
Mitchell, John Miln	SATC	Com	44	* †	Evansville, Ind.
Mitchell, Mamie Lillian		LAS		* †	Danville
Mitchell, Paul Martin	SATC	LAS		* †	Wheaton
Mittenbuler, Robert Lathrop	SATC	ChE		* †	Chicago
Mittelman, Benjamin Eugene		CE	120	* †	Chicago
Miyamoto, Katsuhel		Chem sp		* †	New York, N. Y.
Mock, Harold Jackson		CE	36	* †	Chicago
Moeller, Harold Hugo	SATC	LAS		* †	Chicago
Moffet, Warren	SATC	CE	32	*	Wareville
Moffett, John Frank	SATC	Agr		*	Ashmore
Moffett, Paul Gayland	SATC	Arch		* †	Indianapolis, Ind.
Moffitt, Hugh Leverene	SATC	Aer		* †	Chillicothe
Mohan, Edgar Herbert	SATC	Chem		* †	Chicago
Mohr, Albert William Terry	SATC	ME		* †	Chicago
Mohr, Joseph Sutton	SATC	ME	73	* †	Chicago
Mohr, Truman Jack	SATC	MdP	33	*	Van Wert, O.
Moline, Luella Lygia		LAS		* †	Chicago
Moloney, Adella Mae		LAS	74	* †	Mattoon
Moment, Asher	SATC	ChE	64	* †	Chicago
Mondon, Ruby Esther		LAS	16	* †	Hamilton
Monier, Nellie Willmina		HELAS	33	* †	Bradford
Monohon, Irma Naomi		HELAS (SS)	68	* †	Urbana
Monro, Donald Austin	SATC	EE		* †	Fl. Smith, Ark.
Monsson, William Henry	SATC	CE		* †	Chicago
Montgomery, Winifred		HELAS	66	* †	Marseilles
Montzheimer, Arthur Mosher	SATC	ChE	20	* †	Joliet
Moody, Byrl Paul	SATC	EE		*	Oblong
Moody, Carl Leonard	SATC	Com		*	Peoria
Mooney, Harold Francis	SATC	LAS		* †	Pesotum
Mooney, Paul Cullom		Com (SS)	39½	* †	Philo
Mooney, Thaddeus Constantine		Com		* †	Philo
Moore, Charles Leroy	SATC	LawP		* †	Philo
Moore, Clarence Mason	SATC	Agr		* †	Memphis, Mo.
Moore, Deane Larabee	SATC	ME		*	Danville
Moore, Dicie Ann		SS	5½	*	Rushville
Moore, Eva Elenor		HELAS	53	* †	Urbana
Moore, Frieda Mary		HELAS		* †	Mattoon
Moore, George Wilkinson		Agr	80	* †	Harrisburg
Moore, Helen		Mus (SS)	41	* †	Macomb
Moore, Helen Mabelle		Chem	60	* †	Champaign
Moore, Mrs. Julia McGaughy		LAS sp	4	* †	Mt. Carroll
Moore, Lawrence Sterling	SATC	Agr		*	Aledo
Moore, Lena Lovelle		LAS		* †	St. Charles
Moore, Letha Orva		LAS	51½	* †	Milford
Moore, Nellie Anna		SS	41½	* †	Ashton
Moore, Othmar Lawson		MinE	40½	* †	Pittsfield
Moore, Walter Raymond	SATC	Aer	71	* †	Garratt, Ind.
Moorhead, Mary Elizabeth		SS	4		Wataga
Morales, Maximo Eladio		LAS	61	* †	Aledo
Mordue, Ralph	SATC	Com	41½	* †	Lima, Peru
				* †	Chicago

\* Enrolled in the S.A.T.C., but not inducted.

Morgan, Berwyn Emerson	SATC	Com	• † †	Watseka
Morgan, George Arthur	SATC	ChE	• † †	Chicago
Morgan, George Newell	SNTC	Agr	• † †	Elgin
Morgan, George Olav		Com	• † †	Plainville
Morgan, Irving Bancroft		ChE	• † †	Buffalo, N. Y.
Morgan, Willard Amos	SATC	Agr	• † †	Bone Gap
Morgan, William Ray	SATC	CerE	• † †	Macomb
Morley, Arthur Manley	SATC	Com	• † †	Ottawa
Morrice, John Pressly	SATC	Agr	• † †	Chicago
Morris, Harry Handley	SATC	Agr	• † †	Kansas
Morris, Max Carleton	SATC	Com	• † †	Rock Island
Morris, Mildred Ruth		LAS	• † †	Urbana
Morris, Rachel Margaret		LAS	• † †	Allerton
Morris, Roy Edward		CE	• † †	Dwight
Morrison, Howard Earl	SATC	LAS	• † †	Sikeston, Mo.
Morrison, Lethe Eleanora		HELAS	• † †	Waterloo
Morrison, Mary, A.B., 1902, A.M., 1906		Lib	• † †	Chicago
Morrison, Russell Howard	SATC	Com	• † †	Rantoul
Morrison, Thomas Rominger	SATC	Com	• † †	Greensburg, Ind.
Morrow, Cecil Allen	SATC	LAS	• † †	Clinton
Morse, Alice Mae		LAS	• † †	Carlinville
Morse, Delia Gladys		Com	• † †	Harvey
Morse, Fred Samuel	SATC	EE	• † †	Carlinville
Morse, James Todd	SATC	Com (SS)	• † †	Gifford
Mortensen, Urian	SATC	CE	• † †	Watseka
Morton, Isadore		Chem	• † †	Chicago
Mosby, Mrs. Clara Shaffner		HELAS	• † †	St. Louis, Mo.
Moser, Rosalie Barbara		LAS	• † †	Chicago
Moses, Sylvan Maurice		Agr	• † †	Highland Park
Mosher, Clyde Manley		Agr sp	• † †	Cuba
Mosher, Gordon Saame	SATC	CE	• † †	Rockford
Mosier, Henry David	SNTC	CE	• † †	Urbana
Moss, Eugenia		LAS	• † †	Mt. Vernon
Moss, Frank	SATC	Chem	• † †	Paris
Mott, John Harcourt		LAS	• † †	Rockford
Mottter, Archie Runkle		Com	• † †	Knoxville
Mottier, Parthenia Irene		HELAS	• † †	El Campo, Tex.
Moulton, George Foss		Agr	• † †	Chicago
Mount, Henry Samuel, Jr.	SATC	ME	• † †	Chicago
Mountjoy, Lucius Thompson	SATC	Com	• † †	Chicago
Mountjoy, Ruth Linnell		LAS	• † †	Chicago
Mowe, Roy Benjamin		SS	• † †	Chicago
Moyer, Clema Grace		LAS	• † †	Rochester, Ind.
Moyer, Lester Roy		SS	• † †	Mattoon
Moyers, Gail Clement	SATC	Agr	• † †	Des Moines, Ia.
Mudd, Harmon Lincoln	SATC	LAS	• † †	Kinston
Mueller, Alfred Martin		EE	• † †	Memphis, Mo.
Mueller, Richard Henry	SATC	Agr	• † †	Wilmette
Mueller, Robert Dewey	SATC	Com	• † †	Chicago
Mueller, Walter Alfred	SATC	AE	• † †	Indianapolis, Ind.
Mueller, Walter Rudolph		AE	• † †	Chicago
Mueller, Walter Sack		LAS	• † †	Indianapolis, Ind.
Muench, Harriet Miriam		HEAgr	• † †	South Bend, Ind.
Mugge, George Hudson	SATC	Com	• † †	Olney
Muhs, Elmer Alfred	SATC	Agr	• † †	Harrisburg
Mulhall, Frank James	SATC	EE	• † †	Blue Island
Mullen, William Wallace		SS	• † †	Chicago
Mulliken, Mrs. Elizabeth Elma		SS	• † †	Chandlerville
Mullins, James Thomas		AE	• † †	Champaign
Mullon, Vance Spencer	SATC	MdP	• † †	Champaign
Mulnix, Emory Schriver	SATC	LAS	• † †	New Orleans, La.
Mumm, Walter John		Agr	• † †	Lena
Muncie, John Dwight	SATC	LAS	• † †	Sidney
Mundy, Charles Algy	SATC	LAS	• † †	Danville
Munger, William Carlton	SATC	Com	• † †	Chicago
Munson, Morris George		Com(SS)	• † †	Allon
Muramoto, David Kitano		EE	• † †	Detroit, Mich.
Murphy, Clarence Lester	SATC	Com	• † †	Chicago
Murphy, Clyde Harvy	SATC	Com	• † †	Chrisman
Murphy, George Thomas		MdP	• † †	Harrisburg
Murphy, Hazel Eva		HELAS	• † †	Chicago
Murphy, James Francis		Agr	• † †	Harrisburg
Murphy, John Timothy	SATC	ME	• † †	Lowington
Murphy, Joseph Clement	SATC	ME	• † †	Chicago Heights
Murphy, Mildred Travis		LAS	• † †	Lowington
Murphy, Robert Francis	SATC	Com	• † †	Watseka
Murphy, William Thomas	SATC	CE	• † †	La Grange
Murray, Bernadine Edna		LAS	• † †	Chicago
Murray, Donald Bruce	SATC	Arch	• † †	Rantoul
Murray, Edward James	SATC	Com	• † †	Springfield, Mass.
Murray, Elizabeth Myrtle		LAS	• † †	Westville
Murray, Forrest Kent		Jnl	• † †	Hoopston

"Enrolled" in the S. A. T. C., but not inducted.

Murray, Grace Mildred, A.B., 1917		Lib	• † †	Champaign
Murray, James Lewis	SATC	LAS	•	Clinton, Ind.
Murray, John Ross		CE	•	Harvard
Murray, Lenore Claire		LAS	• † †	Rantoul
Murray, William Moore	SATC <sup>1</sup>	CE	• † †	Springfield
Musick, William	SATC	ChE	•	Delavan
Musselman, Morris McNeil		Jnl	30	Oak Park
Muth, Eleanor Elizabeth		HEAgr	98	Littitz, Pa.
Mutschmann, Friedrich		SS	• † †	Gifford
Myer, Ernest		Agr	28	Chicago
Myers, Chester James	SATC	Com	• † †	Evanston, Wyo.
Myers, Delle Matilda		Agr	73	Spring, Montitoba, Canada
Myers, Mrs. Ella Burns		Jnl	98	Urbana
Myers, Emmett Raymond	SATC	Com	•	Gibson City
Myers, Eva Theresa		SS	5	Long Creek
Myers, Franklin Rudolph	SATC	LAS	• † †	Berwyn
Myers, Harold Henry		LawP	• †	Oregon
Myers, Mrs. Jennie Belle		SS	2	Albany, Ga.
Myers, Kenneth Hayes	SATC	Agr	• † †	Mendon
Myers, Morris Rosenthal		Com	58	Springfield
Nading, Marie Louise		HELAS	23	Yorkville
Nafziger, Edward Paul		SS	• † †	Fairbury, Neb.
Nag, Surendra Chandra	SATC	MSE	135½	Calcutta, India
Nagel, Charles August	SATC	CE	115	St. Louis, Mo.
Nagle, Perry Ira	SATC	ME	• † †	Chicago Heights
Nalbach, Stephen Nicholas	SATC	Com	• † †	Monequa
Nance, Clement Arter	SATC	Agr	19	Chicago
Napier, Milton Fred	SATC	LawP	• †	St. Louis, Mo.
Nardi, Julian	SATC	ME	39	Chicago
Nardi, Victor Gaige		Com	33	Chicago
Nash, Willis Arthur	SATC	CE	• † †	Rockford
Natho, Karl Rufus	SATC	Agr	31	Danville
Naughton, Frank Usher, Jr.	SATC	Agr	• † †	Champaign
Nay, John Willard	SATC	Com	26	Chicago
Naylor, Ralph Edmond		CE	• † †	Chicago
Neal, Kimball Ladd	SATC	ChE	• † †	Chicago
Needham, Alfred Allen	SATC	Agr	• † †	Rockford
Needham, Carrie Isabel, A.B., 1912		Mus irr	• † †	Urbana
Needham, Marguerita		LAS	63	Urbana
Needler, Lowell Quiggle	SATC	Com	• † †	Chicago
Neese, Harold Frederick	SATC	ME	• †	Wilmington
Neff, Harold Alpha		SS	117	Rochelle
Negley, Scott Robertson	SATC	EE	• † †	Farmington
Neill, Alma Jessie, A.B., 1913, A.M., 1915		LAS irr	• † †	Chillicothe
Neiman, Leroy Joseph	SATC	CE	37	Chicago
Nelson, Agnes Louise	SATC	LAS(SS)	100½	Champaign
Nelson, Arthur Edwin	SATC	ME	• † †	Springfield
Nelson, Arthur Elis		Com	25	Evanston
Nelson, Charlotte Augusta		LAS	• † †	Urbana
Nelson, Clarence Eldon	SATC	EE	•	Marseilles
Nelson, Dale Avery	SATC	Com	35½	Donovan
Nelson, Earl Loyal	SATC	ME	• † †	Rockford
Nelson, Franklin Christian	SATC	EE	• † †	Clifton
Nelson, Gilbert	SATC	LawP	•	Chicago
Nelson, Henry Eugene	SATC	EE	•	Rockford
Nelson, Hugh Edwin	SATC	ChE	•	Rockford
Nelson, Iver Martin	SATC	ME	• † †	Elmwood
Nelson, John	SATC	AE	47½	Chicago
Nelson, John Merritt		LAS	29	La Grange
Nelson, Joseph Arvin	SATC	CE	• † †	Chicago
Nelson, Lenord Nels	SATC	Chem	• † †	East Moline
Nelson, Louis Melvin	SATC	CE	35	Chicago
Nelson, Marguerite Richmond		LAS sp	18	Urbana
Nelson, Martin Edward, Jr.	SATC	AE	2	Chicago
Nelson, Norman Bernhardt	SATC	REE	• † †	Chicago
Nelson, Paul Albert	SATC	Com	• † †	Oak Park
Nelson, Paul James	SATC	Com	• † †	Momence
Nelson, Robert Willard	SATC <sup>1</sup>	ME	• † †	Chicago
Nelson, Rudolph Stokes		Chem	75	Rockford
Nelson, Segrid Katharine		SS Lib sp	•	Chicago
Nelson, Viola Ferne		Mus	•	Blandinsville
Nelson, Wendell Phillips	SATC	EE	34	Champaign
Nerothin, Arnold Harold	SATC	CE	•	Batavia
Nesbitt, Carl Wesley		Chem	109	Macomb
Nesheff, George		ME	123	V. Tirnood, Bulgaria
Neterer, Georgianna Marguerite		LAS	•	Marengo
Neuber, Anna Louise		HELAS(SS)	45	Litchfield
Neufeld, August Laurence		ChE	• † †	Peru
Neureuther, Carl Anton	SATC	MF	• † †	Peru
Neville, John Wesley, Jr.	SATC	LAS	60	Pinckneyville
New, Albert Louis	SATC	ME	•	Petersburg
Newcomb, Edwin Eldwood		Arch	99	Burlington, Kan.

<sup>1</sup> "Enrolled" in the S. A. T. C., but not inducted.

Newcomb, Russell Edward	ME	115	• † †	Scranton, Pa.
Newell, Constance	LAS	54	• † †	Urbana
Newell, Josephine	LAS	98	• † †	Urbana
Newell, Roger Sherman	LAS		• † †	Urbana
Newett, Alexander John	SNTC CerE		•	Cicero
Newland, George Milton	SATC Arch	48	•	Cedar Rapids, Ia.
Newlove, Ivadei Elsie	SS	25	•	Milton, N. D.
Newman, Clarence William	LAS		• † †	Malden
Newman, Howard Eugene	SATC Com	32	• † †	Champaign
Newman, Louis Edwin	SATC CE		• † †	Peoria
Newman, Louise Marie	LAS	34	• † †	Champaign
Newman, Ogden	SATC LAS		• † †	Grigsbyville
Newman, Sidney	SATC Com	92	• † †	Chicago
Newman, Thomas Paul	SATC EE		•	Geneva
Newman, Verdi Wesley	SATC Com		•	Kewanee
Newport, Harvey Addison	SATC Agr		•	Verona
Newport, Willard Leslie	SATC Agr	31	•	Hillsboro
Newsom, Paul Irvin	SATC EE		• † †	Mattoon
Newton, Cornelius John	LAS		•	Carthage
Newton, Helen Charlotte	HELAS	87	• † †	Fairfield
Newton, Lillie Mae	LAS(SS)	31	• † †	Burlington, Io.
Newton, Delbert Jay	SATC Agr		•	Milford
Ng, Tak Kei	MinE		• † †	San Francisco, Cal.
Nichols, Alma Marie, B.S., 1913	SS		•	Westerville, O.
Nichols, John Herbert	SATC EE		•	Hebron, Ind.
Nichols, Paul Braxton	SATC ChE	30	•	Ursa
Nichols, Pauline Angeline	Com	34	• † †	Momence
Nichols, Raymond Eugene	SATC Chem		• † †	Monticello
Nichols, Robert Nairne	AE		• † †	Momence
Nickel, Charles Herman	Agr		• †	Arenzville
Nickle, Mrs. Emma Rhoades, A.B., 1899, A.M., 1915	Lib	10	•	Ottawa
Nicolet, Clara Burt	LAS	33	• † †	Urbana
Niehaus, John Mark, Jr.	Law		• † †	Peoria
Niemann, Wilmont Edwin	SATC CE		• † †	Mt. Olive
Nightingale, Eugene Richard	EE	78	• † †	Champaign
Nilson, Ann Eleanor	LAS		• † †	Chicago
Nilson, Edla Dorothea	LAS	34	• † †	Chicago
Nilson, Ethel Birdella	LAS	91	• † †	Chicago
Nobiling, Walter Louis	SNTC Agr		• † †	Kewanee
Noble, Charles Kenneth	SATC EE		•	Rushville
Noble, Merle Emmett	Law	30	• † †	Crawfordsville, Ind.
Nodek, Mathilda Susanna	SS Lib sp		•	Chicago
Noel, Elsie Mae	LAS	102	• † †	Saukemin
Noel, Maxine Florence	LAS		•	St. Louis, Mo.
Noelle, William Lincoln	SATC Com	30	• † †	Chicago
Noethling, Clarence Max	SATC RCE		• † †	Chicago
Noftz, Howard Charles	SATC Com		•	Champaign
Nolan, Thomas James	SATC Com	30	• † †	Morris
Nolen, Harry Fern	ME	73	• † †	Urbana
Norberg, Melvin Alfred	SATC om		•	Spring Valley
Norman, Ashford Charles	SATC LAS		•	Oak Park
Norman, Helen Grant	LAS(SS)	25	• † †	Champaign
Norman, Louise Elizabeth	LAS(SS)	29½	• † †	Champaign
Norman, Margaret Angeline	LAS	31	• † †	Champaign
Norman, Milton Eugene	CE	105	• † †	Chicago
Norman, Willard Alfred	SATC Chem	38½	• † †	Chicago
Norris, Wesley Andrew	SATC MdP		•	McLeansboro
Norsworthy, James Harold	SATC Agr		•	Mt. Carmel
North, Alma Marie	Com	80	• † †	Rockford
North, Helen Margaret	LAS	60	• † †	Tulsa, Okla.
Norton, Bertha Lucile	SS	25	•	Champaign
Norton, Marc Carpenter	SATC Com		• † †	Champaign
Norton, Wayne Roland	ME		•	Bloomington
Nothwang, Roswell Standish	SATC Jnl	18	• † †	Little Rock, Ark.
Novak, Joseph Frank	SATC CE	62	• † †	Chicago
Novak, Julius	EE		• † †	Chicago
Novak, Maurice	ChE		• † †	Chicago
Novotny, Vincent Thomas	SS	10½	•	Amber, Okla.
Nowlin, Owen Wendell Emen	SATC MdP		• † †	Farmer City
Noxon, George Albert	SATC ME	31	• † †	St. Louis, Mo.
Nudd, Florence Louise	LAS		• † †	Clinton
Nuessle, Dwight Avery	Com		• † †	Onawa, Ia.
Null, Miriam Ellen	HELAS	107	• † †	Urbana
Nutt, Bertram Vere	LAS	29½	•	Moline
Nutt, Clarence Arthur	SATC Agr		•	Mendon
Nyberg, Florence Anna	LAS(SS)	9	• † †	Urbana
Nyberg, Nettie Irene	Com	31	• † †	Urbana
Nydam, Syberen Frank	SATC ME		•	Chicago
Oakes, James Lowell	SATC LAS	28½	•	Champaign
Oakes, Junieor Donald	SATC LAS		• † †	Champaign
Oberne, George Struble	SATC ME	123	• † †	Chicago

† "Enrolled" in the S. A. T. C., but not inducted.

O'Brien, Florence Mary	SS	15	•	†	Chicago
Ochoa, Jorge Vizcaino	EE	71	•	†	Guadalajara, Mex.
Ochoa, Vizcaino Alfonso	Arch	98½	•	†	Guadalajara, Mex.
Ocock, William Henry	SNTC ME		•	†	Marengo
O'Connor, Edward John	SATC Com		•	†	Kewanee
O'Connor, Roger Russell	SATC EE(SS)	40	•	†	Chicago
Odell, Laura A	SS	130½	•	†	West Salem
O'Donnell, Mrs. Dorothy Miller	Mus sp		•	†	Urbana
O'Donnell, Frank Harley	SATC Jnl	29	•	†	Rantoul
Ogden, Paul Dale	SATC Com		•	†	Champaign
Ogg, John Hurley	SATC ME	138	•	†	Buffalo, N. Y.
O'Hair, Mildred	LAS	27	•	†	Bainbridge, Ind.
Okimoto, Saichi, A.B., 1916	Agr		•	†	Hiroshima, Japan
Olander, Milton Martin	SATC CE		•	†	Rockford
Oldham, Herman Lester	SATC CE		•	†	Morrisville
Olesen, Alma Carrie	HELAS	90	•	†	Highland Park
Olin, Franklin Walter, Jr., B.S., 1912	LAS sp		•	†	Alton
Olsen, Lester Earl	SATC Com		•	†	Chicago
Olsen, Marvin Roy	SATC ME		•	†	Chicago
Olsen, Rangwald Severn	SATC ChE		•	†	Chicago
Olson, Albin Theodore	SATC Com		•	†	Maywood
Olson, Elmer Rudolph	SATC ME		•	†	Paxton
Olson, Oscar Helmer	SNTC ME	73	•	†	Rockford
Olson, Verner Bylou	SNTC EE		•	†	Chicago
Oltusky, Rose Josephine	Jnl		•	†	Waukegan
Oltz, Russell Manning	SATC EE		•	†	Hammond, Ind.
Omansky, Dora	Mus		•	†	Chicago
Omansky, Samuel	Arch	71½	•	†	Chicago
Omer, Daniel Oliver	LAS		•	†	Pontiac
Opdahl, Carl	SATC CE		•	†	Sheldon, N. D.
Oppenheim, Willard Carlton	SATC ME		•	†	Rockford
Opperman, Frances Marie	HELAS		•	†	Bloomington
Oranger, Lowell Dudley	SNTC ME		•	†	Rock Island
Orelup, Frederick Decker	SATC Com		•	†	Aurora
O'Riley, Richard Stanley	SATC Com		•	†	Chicago
Ormsby, Leila Mae, A.B., 1914	SS	138½	•	†	Greenup
Orr, Harold James	SATC Jnl	60	•	†	Tulsa, Okla.
Orwig, Harold I	SATC Agr		•	†	Winnetka
Osada, Stanislaw Marie	MdP	32	•	†	Chicago
Osborn, Charles Walter	SATC Com		•	†	Glenwood
Osborn, Harold Marion	SATC Agr		•	†	Butler
Osborne, Edward William	SATC MinE		•	†	Chicago
Osborne, Pauline Theodora, A.B., 1916	SS	133	•	†	Champaign
Osburn, Harold Christian	SATC Com		•	†	Siltis
Osburn, Herbert Schmalz	SATC Com		•	†	Siltis
Ostrom, Hallas Willard	Chem	65½	•	†	Chicago
Otey, Ed Rainey	SATC Agr		•	†	Marion
Ott, George	SATC ME		•	†	Harvey
Otterstrom, Florence Ann Marie	Chem	39	•	†	Lockport
Otterstrom, Ruth Edith	LAS	53½	•	†	Lockport
Otto, Willis Leo	SATC EE		•	†	Cambridge
Over, Harold Allard	SATC EE		•	†	Fort Worth, Tex.
Over, Howard Smith	SATC Com		•	†	Sterling
Overend, Wallace Ivan	Arch	23	•	†	Edelstein
Overstreet, Ethel	LAS	107	•	†	Eustis, Fla.
Owen, Admyrle Hayward	SATC Com	62	•	†	Villa Grove
Owen, Charles Smith	SATC Com		•	†	Cushine, Okla.
Owen, Stewart Douglas	SATC Jnl	63	•	†	Louisville, Ky.
Owens, Celia Evelyn	MdP(SS)	50	•	†	Battle Creek, Mich.
Owens, Gilbert Thomas	SATC ME		•	†	Cuba
Owens, Thurston Dorr	EE	71	•	†	Peoria
Ozment, George Lemon	SATC EE		•	†	Johnston City
Packard, Reginald Floyd	SATC ME	67	•	†	Peoria
Paddock, Priscilla Barton	SS	76	•	†	Kankakee
Padgett, Floyd Lupton	SATC Com		•	†	Assumption
Page, Howard Leslie	SATC Agr		•	†	Galesburg
Pagin, Lewis Bernard	Com	64	•	†	Lo Grange
Pahl, Henry Detlef	LAS		•	†	Clinton, Ia.
Pahl, Margaret Christina	HELAS	69	•	†	Clinton, Ia.
Painter, Harry Ware	SATC Agr		•	†	Mound City,
Painter, James Russell	SATC Agr		•	†	White Hall
Paisley, George Francis	LAS	17	•	†	Decatur
Paisley, Stella Elizabeth	LAS	48	•	†	Urbana
Palmer, Mrs. Anna Shattuck, B.L., 1891, M.L., 1895	Mus irr		•	†	Champaign
Palmer, Charles Boone	ME		•	†	Aurora
Palmer, Edson, Jr.	SNTC ME		•	†	Burlington, Ia.
Palmer, Grace Rhodes	HELAS(SS)	21	•	†	Omaha, Neb.
Palmer, Harriet Elizabeth	SS	8	•	†	Minot, N. D.
Palmer, Louise B	SS	5	•	†	Minot, N. D.
Pangborn, Harold L	SATC EE		•	†	Gilman

"Enrolled" in the S. A. T. C., but not inducted.

Pankey, Thomas Lorton	SATC	ME		•	†	†	Galesburg
Pappmeir, Louis Stahl		CE	111	•	†	†	Litchfield
Pappmeir, Waldron		Com	31	•	†	†	Litchfield
Paquet, Leo Fred	SATC	Com		•	†	†	Chicago
Parish, Ira Dwight	SNTC	ME		•	†	†	Churubusco, Ind.
Park, Martha Ann		HELAS	101	•	†	†	St. Louis, Mo.
Parker, Dewey Everett	SATC	Com		•	†	†	Tuscola
Parker, Frances Miriam		Com	66	•	†	†	Mattoon
Parker, George Albert	SATC	Com		•	†	†	Mound City
Parker, Gertrude Waterhouse		LAS		•	†	†	Aurora
Parker, Griffith Hilton	SATC	LAS		•	†	†	Champaign
Parker, Helen Lucy, A.B., 1913, B. M., 1914		SS	215	•	†	†	Champaign
Parker, John Houston		ME	20	•	†	†	Lincoln, Neb.
Parkes, William Miller	SATC	MdP		•	†	†	Evanston
Parkhill, Olen George	SNTC	Agr	33	•	†	†	Champaign
Parkinson, Ethel Morton		LAS	16	•	†	†	Centralia
Parkinson, Lester Jay		Aer sp		•	†	†	Maxwell
Parks, John Edward		EE		•	†	†	Elgin
Parks, Walter Louis	SATC	Agr		•	†	†	Patoka
Parr, Harold Leslie		AE	36½	•	†	†	Champaign
Parrett, Ruth		HELAS		•	†	†	St. Joseph
Parrott, Thelma Hall		LAS	64	•	†	†	St. Louis, Mo.
Parsons, Mary Wilkie		LAS		•	†	†	Riverton
Partridge, James Forney		Com(SS)	31	•	†	†	Springfield
Pasmore, Daniel Fredrick, A.B., 1913, A.M., 1914, Ph.D., 1917		SS		•	†	†	Edgewood, Canada
Pasternak, Thomas		LAS	32	•	†	†	Kensington
Patten, Ira Charles	SATC	ME		•	†	†	Vermilion Grove
Patterson, Mrs. Edith Bidwell		Mus sp		•	†	†	Urbana
Patterson, Elizabeth Eleanor		Mus	95	•	†	†	Chicago
Patterson, Jeanette Mary		LAS	60	•	†	†	Mt. Carroll
Patterson, Willa Ruth		SS	25½	•	†	†	Baldwin
Pattison, Donald McClure	SATC	Agr		•	†	†	Wilmette
Pattison, Elmer Russell	SATC	Agr		•	†	†	Alexis
Pattison, Richard Henry	SATC	Agr		•	†	†	Alexis
Pattiz, Simon	SNTC	ME	39	•	†	†	East St. Louis
Patton, Anna Marie		LAS		•	†	†	Bridgeport
Patton, Audley Everett	SATC	Com	34	•	†	†	Pittsburg, Kan.
Patton, Joseph Robinson, Jr.	SATC	CE	31	•	†	†	Atlanta
Patton, Leigh Newsom	SATC	Aer		•	†	†	Mt. Carroll
Pattullo, Milton Dreyer	SATC	CE		•	†	†	Chicago
Paul, Mary Josephine		SS	92½ <sup>12</sup>	•	†	†	Jerseyville
Paul, Nellie Pearl		SS	7	•	†	†	Springfield
Paulson, Philip	SATC	Com		•	†	†	Ohio
Paxton, Glen Gilbert	SNTC	ME		•	†	†	Golden
Payne, Eugene Herbert	SATC	Agr		•	†	†	Geneva
Payne, John William	SATC	LAS	32	•	†	†	Shelbina, Mo.
Payne, Lucile		Com		•	†	†	Champaign
Payne, Maurine		Mus(SS) sp	8	•	†	†	Champaign
Payne, Robert William	SATC	Agr		•	†	†	Chrisman
Payne, Thresa Dortha		LAS		•	†	†	Lawrenceville
Peale, Carroll Marcellus	SNTC	EE		•	†	†	Kansas City, Mo.
Pearce, Everett Augustine	SATC	ChE		•	†	†	Flora
Pearce, Margaret Cathryn		LAS	31½	•	†	†	Chicago
Pearce, Marvin James	SATC	ChE	70	•	†	†	Johnston City
Pearlman, Isador		MdP	18	•	†	†	Kankakee
Pearre, William Payson	SATC	LAS	10	•	†	†	Pontiac
Pearson, Lasche	SATC	Com	34½	•	†	†	Chicago
Pearson, Robert Miller	SATC	ChE	82	•	†	†	Thorntown, Ind.
Peart, G Raymond		MdP		•	†	†	Gillespie
Pease, David Ward	SATC	ME	72	•	†	†	Chicago
Peck, Marian Christine		LAS		•	†	†	Harvard
Peck, Purcell		SS	5	•	†	†	Springfield
Peden, Don Charles	SATC	Com		•	†	†	Kewanee
Peefi, Nicola Tassefi		ME		•	†	†	Toledo, O.
Peers, Frank Bohnenezer	SNTC	Agr		•	†	†	Decatur
Peirce, Vernon Densmore	SATC	Com	1½	•	†	†	Chicago
Peirson, Louis Walter	SATC	ME		•	†	†	Moline
Pelhank, Hobart Damron	SATC	Com		•	†	†	Eldorado
Pence, Leo Berlin		Com		•	†	†	Mattoon
Pendergast, Emly Marie		LAS	37½	•	†	†	Urbana
Pendergast, Nelle Marie		Mus(SS)	90	•	†	†	Urbana
Pendleton, Bernice Cassandra		SS	64	•	†	†	Durant, Okla.
Penning, Fred Fillmore	SATC	EE		•	†	†	Jerseyville
Pentecost, Ruth Elizabeth		Arch	37	•	†	†	Terre Haute, Ind.
Pepper, Olive Walton		LAS		•	†	†	Allensville, Ky.
Perardi, Frank	SATC	EE		•	†	†	Farmington
Percival, William Frank	SATC	Com	87	•	†	†	Champaign
Perez, Arce Guillermo		EE	29	•	†	†	Guadalajara, Mexico
Perkins, Frances Deetee		SS Lib sp		•	†	†	Gilman
Perkins, John William	SATC	ChE		•	†	†	Monticello
Perkins, Philip Powell		ChE		•	†	†	West Chicago
Perlman, Samuel Charles		LAS	65	•	†	†	Chicago
Perrin, Frieda Grace		SS	7	•	†	†	Allon

Perrine, Robert Garver	SATC <sup>1</sup>	CE	•	†	†	Oregon
Perrott, Alma Starr		Mus	31	†	†	Champaign
Perry, Nellie Cora		Com	13	†	†	Chicago
Perry, Winifred Almina A.B., 1908, A.M., 1914,		SS				Urbana
Persons, Margaret Hazlett		LAS	55½	†	†	Oak Park
Peters, Jasper Wilson	SATC	Com				Muncie
Peters, Russell Logan	SNTC	EE				Trivoli
Petersen, Arthur Euwold	SATC	ME				Chicago
Peterson, Arthur Dewey		EE				Springfield
Peterson, Frank Lindell		Com	36	†	†	Oak Park
Peterson, Ivan Lorenza	SATC <sup>1</sup>	ME		†	†	Galva
Peterson, Karl Linden		EE		†	†	Weldon
Peterson, Lawrence Eugene	SATC	CE	99	†	†	Grand Rapids, Mich.
Peterson, Leona Amy		LAS		†	†	Paxton
Peterson, Lester Carlisle	SATC	Chem	70	†	†	Champaign
Peterson, Mabel Elizabeth		LAS	98	†	†	Maywood
Peterson, Maurice Winfield	SNTC	Com	34	†	†	Champaign
Peterson, Paul Ferdinand	SNTC	CE		†	†	Batavia
Peterson, Ruth Mabel		HEAgr		†	†	Chicago
Peterson, Sherman Fletcher	SATC	ChE		†	†	Rockford
Peterson, Sidney Le Roy	SATC	ChE	71	†	†	Chicago
Petit, Adolor John, Jr.		LawP	10	†	†	Chicago
Petrie, Ralph William	SATC	Com		†	†	Chicago
Petriz, Margaret Louise		LAS	20	†	†	Rockford
Pettibone, Mabel Clare		LAS	15	†	†	Chicago
Pettigrew, Charles Paton	SATC	ME	30	†	†	Joliet
Peyton, Edna		LAS	37	†	†	Warsaw
Pfahler, Frank Joseph, Jr.	SATC	Agr		†	†	Evanston
Pfanz, John Frederick	SATC	Agr				Pekin
Pfau, Howard Williams		Com sp		†	†	Chicago
Pfeiffer, Arthur Edwin	SATC	ME				Edwardsville
Pfiester, Donald Ross	SATC	Agr				Bondville
Pfitzenmeyer, Ada Murray		HELAS(SS)	51½	†	†	Le Roy
Pfuderer, William Frederick, Jr.	SNTC	Jnl(SS)	56	†	†	Berwyn
Phalen, Francis Joseph	SNTC	EE		†	†	Allerton
Phalin, Thomas Moore	SATC	Agr		†	†	McHenry
Phelps, Esther Merle Britton		LAS		†	†	Le Roy
Phelps, Mary Edna		Mus	33	†	†	Lawrenceburg, Ky.
Phillippe, George Franklin		ME sp		†	†	Champaign
Phillips, Grace Mildred		LAS	32	†	†	Elgin
Phillips, Harriet Muriel		Agr	111½	†	†	Fennville, Mich.
Phillips, Ione		HEAgr		†	†	Champaign
Phillips, Lloyd Curtis		ME		†	†	Cuba
Phillips, Mary Dodds		Mus sp		†	†	Anna
Phillips, Orrin	SNTC	AE		†	†	Speer
Phillips, Raleigh L		SS				Stilesville, Ind.
Phillips, Rhoda		LAS		†	†	Kendallville, Ind.
Phillips, William Loring	SATC	CE	103	†	†	Elgin
Phillips, William Merle	SATC	EE		†	†	Saukemin
Picha, Rudolph Joseph	SNTC	Agr		†	†	Chicago
Pickens, Louise Milliken		HELAS	33	†	†	Ottawa
Picker, Paul Lewis	SATC <sup>1</sup>	Com		†	†	Assumption
Picknell, Helen Virginia		LAS		†	†	Champaign
Pierce, Jessie Evelyn		SS	57½			Urbana
Pierce, Maurice J	SATC	Com	49	†	†	Champaign
Pierce, Morris Aaron		Agr		†	†	Russia
Pierson, Charles Howard		CE	103½	†	†	Zion City
Pierson, Orville William	SNTC	LAS		†	†	Hillsboro
Pilgrim, Wilbur Francis	SATC	Com		†	†	Chicago
Pinckard, Harold Recenus	SATC	AE	58	†	†	Monticello
Pinckney, George Clinton	SATC	Chem		†	†	Ft. Smith, Ark.
Pinheiro, Machado Dulphe		Agr sp		†	†	Grande de Tuc, Brazil
Pinheiro, Renato		Com	35	†	†	Sao Paulo, Brazil
Pinheiro, Ruy		RCE	136½	†	†	Sao Paulo, Brazil
Pinkerton, Francis Elmore, Jr., B.S., 1909		Agr irr		†	†	Portage, Wis.
Pinkerton, Matilda Irvine, A.B., 1910		SS	10			Monmouth
Pinnell, Alma Jean		HEAgr	65	†	†	Kansas
Pinnell, George Shelby	SATC <sup>1</sup>	Agr		†	†	Kansas
Pittman, Arthur Jesse	SATC	Agr		†	†	Cuba
Pittman, Jannie May		LAS		†	†	Mt. Vernon
Plagge, Grace Elis		LAS		†	†	Chicago
Plambeck, William Francis	SATC	EE		†	†	Moline
Plymale, Betha, A.B., 1918		SS	135½			Demileith, W. Va.
Poehlmann, Rcland Morton	SATC	Agr	63	†	†	Morton Grove
Poehlmann, Walter Gustave		Agr	100	†	†	Morton Grove
Polken, Lester Wilbur	SATC	CE		†	†	Evanston
Polk, Arthur Eugene	SATC	CerE	105	†	†	Urbana
Polkowski, Anna		LAS(SS)	112½	†	†	Champaign
Pollard, Robert Lynn	SATC	EE		†	†	Springfield
Pollitt, Russell Lowell	SATC	Agr		†	†	Urbana
Pon, John Maynard	SATC	Arch	13	†	†	Chicago

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Pond, Seymour Gates		ME sp	8	• † †	Urbana
Ponder, John Raymond	SNTC	Com		• † †	Tuscola
Pool, Susan Bessie		Com	6	• † †	Auburn
Poole, Foster Malic	SATC	EE	38½	• † †	Edwardsville
Pope, Walter Scott		SS	26%	•	Berwyn
Poppe, Carl Hermann	SATC	CE		•	Chicago
Porte, Robert Harold		LAS	21	• † †	Chicago
Porter, Ernest Raymond	SATC	ME		•	Cuba
Porter, Horatio Allingham		Com	33	• † †	Gerlaw
Porter, Marvele Aline		LAS		• † †	Hume
Porterfield, Hazel Ethel		HELAS	48	• † †	Urbana
Portnoy, Samuel Jay	SATC	Com		•	Chicago
Possey, Wallace Dixon	SATC	EE		• † †	Davenport, Ia.
Posson, Gail Kenyon	SNTC	ME		•	Chicago
Postlewait, Russel Howard	SATC	Com		•	Bement
Poston, William Irvin	SATC	Com		• † †	Crawfordsville, Ind.
Potter, Beulah Adelia		HELAS	62	• † †	Indianapolis, Ind.
Potter, Dorothy Buckman		SS	76	•	Arcola
Potter, James Streater		Agr		• †	Quincy
Potter, Maude Marian		LAS	62	•	Armour, S. D.
Potter, Merwin William		LAS	50	• † †	La Fox
Potter, Pauline Norma		LAS		• † †	Hillsboro
Potts, Morrell		Com		• † †	Champaign
Potts, Virgil Wayne	SATC	Com		• † †	St. Francisville
Poulson, Frank Edward		LAS	97	• † †	Chicago
Poulson, Charles Theodore	SATC	MdP		• † †	Armour, S. D.
Powel, Howard Palmer	SATC <sup>1</sup>	ME		• † †	Taylorville
Powell, Cameron Lyle	SATC	LAS		•	Danvers
Powell, John Henderson, Jr.	SNTC	LAS	65	• † †	Kansas City, Mo.
Powell, Robert Perry	SATC	MSE		• † †	Dixon
Powers, Paul Mighell	SATC	ME	14	• † †	Blackfoot, Ida.
Powers, Ray Lyman	SATC	Com		• † †	Barrington
Praetke, Herbert Wright	SNTC	EE		•	Streator
Prante, Beulah Wise		LAS	105	• † †	Quincy
Prather, Carlisle Nial		Chem		•	De Land, Fla.
Prather, Vernon Dewey	SATC	Agr		•	Urbana
Pratt, Ivie	SATC	Agr		•	Armington
Pratt, Meryle Edith		LAS		• † †	Chicago
Pratt, Owen Eugene	SATC <sup>1</sup>	Agr		• † †	Arminston
Preece, Rae	SATC	CE	31½	• † †	Quincy
Prescott, John Shedd	SATC	CkE	34	• † †	Wilmette
Preston, Walter Bryan		LawP		• † †	Pekin
Prettyman, Lula Iva		LAS	62	• † †	Havana
Preucil, George	SATC	Com		• † †	Oak Park
Price, Benjamin Montague May	SATC	Law	34	•	Champaign
Price, Harold Gordon	SATC	Agr	30½	• † †	Payette, Ida.
Price, Kenneth Thomas	SNTC	Arch	33½	• † †	Comanche, Okla.
Price, Marion Erenay		HELAS	121	• † †	Urbana
Price, Northa Ann		LAS	65½	• † †	Abingdon
Price, Shelby Andrew		Com		• † †	Brocton
Prichard, Ginevra Gregory		Mus	56	• † †	Lovington
Prichard, Louise Gilman		LAS	31	• † †	Champaign
Prichard, William Townsend		CerE		• † †	Champaign
Pride, William Humphrey	SATC <sup>1</sup>	Agr		• † †	Springfield
Pringle, Helen Smith		LAS	62	• † †	Normal
Printup, Glenn Hale	SATC	Com	29	• † †	Oak Park
Pritchard, Elliott Alfred, Jr.		Agr	96	•	Aurora
Pritchard, Hettie Justine		LAS		• † †	Indianapolis, Ind.
Probst, John Stanley	SATC	Agr	66	• † †	Elkhart, Ind.
Probst, Marvin George	SATC	Arch		• † †	River Forest
Proctor, Harrington Lee	SNTC	MdP	27	• † †	Rantoul
Propst, Christy Anderson	SATC	Com	19	• † †	Langview, Tex.
Propst, James Augustus	SATC	MdP		•	Paris
Proyart, Charles Raymond	SATC	MdP		•	DuQuoin
Pruitt, Wesley Chancellor	SATC	Com		•	Springfield
Puckey, Roy Thomas		SS	5	•	Wheaton
Puffpaff, Louis Frank	SATC	ME		•	Carpentersville
Pugh, Cloyd		Agr	74	• † †	Ridge Farm
Pulliam, Vernon Donald		CE	55	• † †	Fithian
Pulsipher, Betty Marie		HEAgr	120	• † †	Brimfield
Pulver, Edbert Lyle	SATC	Agr	32½	• † †	Granada, Minn.
Pumpelly, Ruth Allison		Jut		•	Quincy
Purdy, Glenn Gibson	SNTC	EE		•	Joliet
Pursell, Florence Bryant		LAS(SS)	7	• † †	Champaign
Pursell, Waldo Emerson	SATC	Com	32	• † †	Champaign
Pustmueller, August Edward	SATC	Agr		•	Belleville
Putnam, Mary Heiskell		HELAS(SS)	99	• † †	Urbana
Putney, Emma Marion		HELAS	123½	• † †	Missoula, Mont.
Putz, Clifford Raymond	SATC	CE		• † †	Rockford
Pyke, Donald O'Conner	SATC	ME		• † †	Peoria
Pyle, Carrie May		HELAS	83	• † †	Lebanon
Pyle, Ernest Taylor	SNTC	ME		• † †	Dana, Ind.

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Pyne, Edgar John	SATC	Com		•	Lead, S. D.
Quaid, Lloyd James	SNTC	EE	73	• † †	Downs
Quiet, Donald Francis	SATC	MdP		•	Mattoon
Quigg, James Robert	SNTC	Com	18	•	Richmond, Ind.
Quigley, Alfred Edwin	SATC	LAS		•	Lewistown
Quigley, Oliver Francis		ME	99	†	Wilmington
Quinlan, Josephine Cecilia		LAS	46	† † †	Pesotum
Quinlan, Katherine May		LAS sp	32	† † †	Pesotum
Quinn, Francis Jones	SATC <sup>1</sup>	LAS		• † †	Lafayette
Quinn, Walton Stephen	SATC	LAS		•	Chicago
Quirk, Erma May		LAS	16	† †	Chicago
Rabenau, John	SATC	Com	35	† † †	St. Louis, Mo.
Rackerby, Arthur Frederick		Law	32	† † †	Hulsonville
Rademacher, Erwin Julius		Com		•	Nokomis
Radcliffe, Charles Bauer	SNTC	ME(SS)	28½	•	Rockford
Radeke, Carl Henry	SNTC	Com	63	† †	Buckley
Rafinski, Raymond Joseph	SATC	Chem		†	Thomaston, Conn.
Raggio, Maynard Holding		LAS		†	Chicago
Ragland, Lewis Washington		SS	127½	•	Urbana
Ragland, Nugent Atherton	SATC	CerE	36	† †	Urbana
Rahn, Agnes Marie		HELAS		† †	Thornton
Rahn, Gertrude Augusta		HEAgr	68	†	Thornton
Raich, Edwin John		CE	19	†	Warsaw
Raichart, George Louis	SATC	EE		•	Chicago
Raike, Damon	SATC	ME		•	Chicago
Raines, Merle Vincent		LAS	10	† †	Urbana
Rainey, Charles Franklin	SATC	ME		•	Hillsboro
Rains, Gladys Fay		SS Lib sp		•	Sioux Falls, S. D.
Rakow, Walter M		Com	16	† †	Dundee
Ralston, Albert Alexander	SATC	EE		•	Rockford
Ramm, Paul John		Agr	8	† †	Chicago
Randall, Chellis Hooker	SATC <sup>1</sup>	Agr		• †	Bowen
Randall, Oscar	SATC	CE	71	† †	Washington, D. C.
Randall, Mrs. Ruth Elaine		SS	1	•	Salem, Va.
Randolph, Charles Ethelbert	SATC <sup>1</sup>	LAS		† †	Chicago
Randolph, Glenn Lake F		EE	125	•	Trilla
Randquist, Bert Carl	SATC	Com		•	Chicago
Ranger, Paul Huber	SATC	LAS		•	Elkhart, Ind.
Rankin, Harley Lester		Arch		• †	Pekin
Rankin, Harold Theodore	SATC	Com		•	Lincoln
Ranney, Leland Mark	SATC	Agr	32½	†	Cazenovia
Ranney, Willard Parminster, B.S., 1917		SS	134	•	Cazenovia
Ransford, Maurice Reuben		Arch	97	† †	Hollywood, Cal.
Rapp, La Verne	SNTC	CE	23	† †	Chicago
Rarick, John Nelson		Agr	37	† †	Urbana
Rasmus, Walter Ephraim	SATC	CE	63	† †	Chicago
Rasmussen, George	SNTC	Com		† †	Mincral
Rasmussen, John Cadwalader	SATC	Agr	33	† †	New Albany, Ind.
Rasmussen, Rosie Olivia		SS	7	•	Leland
Ratliffe, Cyril Robert	SATC	ME		•	Beardstown
Rath, Howard Harbin	SATC	Com	30	† †	Waterloo, Ia.
Rathbun, Harry Rowland		Com	87	† †	Glen Ellyn
Ratz, Clarence Adolph	SATC	Com		•	Red Bud
Raup, Philip Ward		Com	24½	†	Monroe Center
Rawitch, Maurice N	SATC	ME	109	•	Chicago
Ray, Floyd William		AE	40	† †	Urbana
Rayburn, Dora Elsie		LAS		• †	Champaign
Rayburn, Gladys Adele		LAS		† †	Champaign
Raymond, Emerson Edward		AE	34	† †	Chicago
Rea, Doren Eugene	SNTC	Com(SS)	56½	† †	Azon
Reardon, Victor Ambrose	SATC	Agr	29½	†	Joliet
Rebman, Lana Gail, A.B., 1909		SS	136½	•	Frederick
Reckard, Dale Wadsworth	SATC	ME		•	Chicago
Record, Ella Marian		HELAS	114	†	Cambridge
Reding, Ralph Spears		Agr	93½	† †	Petersburg
Reed, Dwight Cecil	SATC	Com		•	Salem
Reed, Frank Ballard	SATC	Agr		•	Cairo
Reed, Gordon Wies	SATC	ME		† †	Chicago
Reed, Hazel Viola		HELAS(SS)	115	† †	St. Louis, Mo.
Reed, James Lowell	SATC	LawP	28	•	Eldorado
Reed, Sina M		LAS	52	† †	Danville
Reed, Wilma Virginia		HEAgr	34	† †	Equality
Reeder, Charles West		Com	15½	† †	Hays, Kan.
Rees, Charles Thomas	SATC	Com	69	† †	Bradford
Rees, Myron Lester		Agr	90	† †	Rochester, Ind.
Rees, Olive		HELAS	33	†	Bradford
Reese, Raymond Leslie		Agr	106½	†	Jonesboro, Ark.
Reess, Stella Georgia		HELAS	113	†	St. Louis, Mo.
Reeves, Dwight Coleman		MdP	36	†	Bement
Rehnquist, Arvid Lawrence		CE	71	†	Chicago
Rehorst, Arthur Henry	SNTC	Com		†	New Hampton, Ia.
Reich, Hattie Elizabeth		SS	10	†	St. Louis, Mo.

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Reich, William Robert	SATC	Chem	• † †	Urbana
Reichle, Richard Wendell		Com	20	Beason
Reid, James Thomas		Com	33	† † Sullivan, Ind.
Reid, Virginia Dorsett		LAS	†	Oak Park
Reimer, Edward August Wilhelm	SATC	LawP	•	Dundee
Reimund, Harold Richard	SATC	Com	•	Mt. Carmel
Reineck, Robert Walter		ChE	57½	† † Chicago
Reinitz, Albert Leonard	SATC	Com	•	† † Chicago
Reinke, Karl Louis	SATC	CE	41½	† † Chicago
Reis, Leonard Joseph	SATC	Arch	31	† † Green Bay, Wis.
Reitsch, Henry Oviatt	SATC	Com	2	† † Rockford
Rembe, Roland Frederick	SNTC	MdP	•	Lincoln
Remley, Elsie Jeannette		Lib sp	•	† † Anamosa, Ia.
Remley, Walter Brown		Agr(SS)	103	† † Waynetown, Ind.
Remster, Ora Barton	SNTC	EE	•	Hoopston
Rendleman, Ruth John		LAS	†	Cairo
Rennebaum, Ernest Henry		LAS	13	† † Franklinville, N. J.
Rennoe, Edgar Jackson	SNTC	Com	27	† † South Bend, Ind.
Renolds, Magdalene Agnes		SS	46	Cairo
Rentchler, Frieda Clara		SS	12	Belleverre
Repke, Erwin William	SATC	ChE	•	Elmhurst
Rettig, Clifford Winner	SATC	ME	•	Joliet
Reum, Oscar Anthony, Jr.		ChE	21	† † Chicago
Reuther, Theodore Ferdinand	SATC	MdP	32	† † Effingham
Revot, John Joseph	SATC	LAS	•	DeKalb
Rhoades, Helen Hawthorne		LAS	•	† † Ladoga, Ind.
Rhodes, Frances		Mus	33	† † Allamont
Rhodes, Golda May		HELAS(SS)	107½	† † Urbana
Rhodes, Opal Terrissa		HELAS	104½	† † Urbana
Rhue, Lena Cecelia		Com	105	† † Champaign
Rice, Charles Lawrence	SATC	EE	•	La Harpe
Rice, Helen Thompson		Com	31	† † Bridgeport
Rice, Warner Grenelle		LAS	70	† † Aurora
Rich, John Dwight	SATC	Agr	•	Saukemin
Rich, Rufus Joseph		LAS	12	†
Richards, Gladys Ersel		Mus	64	†
Richards, Howard Lauphere	SATC	MdP	•	Champaign
Richards, Lester Amos	SATC	Com	32	Lincoln
Richards, Robert Watt	SATC	ME	•	† † Urbana
Richards, Stanley Salem	SATC	LAS	•	Marshall
Richards, William Samuel, Jr.	SATC	AE	•	Villa Grove
Richardson, Barnett Raymond	SATC	ME	•	Oswego
Richardson, Donald Ellis		Agr	25	† † Shelbyville
Richardson, Edith Irene		LAS	31	† † Tipton, Ind.
Richardson, James Hollins	SATC	CE	•	† † Rentchler
Richardson, Paul Charles	SATC	Jnl	29½	•
Richardson, Richard Leon	SATC	LAS	•	Olney
Richart, Berta Estella		HELAS	113½	•
Richey, Gail Lee		LAS	•	† † Urbana
Ricker, Ethel, B.S., 1904		Arch irr	•	† † Clinton
Rickert, Edward Ernest	SATC	ChE	•	† † Urbana
Ricketts, Esther Brodie		SS	15½	† † Chicago
Ricketts, Mabel Duncan, A.B., 1897		SS	7	Pana
Ricks, Marcella Angel		LAS	28	Urbana
Riddle, Harold William	SATC	LAS	•	Taylorville
Rideout, Orletta Estelle		LAS	56	† † Le Moille
Rider, Edward Oliver	SATC	LAS	•	† † Freeport
Rider, Jav Merle	SATC	LawP	•	Oquawka
Riedle, William Reid		LAS	69	† † Rockford
Rießer, Edward William		MSE	•	† † Chicago
Riegel, Edith E		HELAS	•	† † Springfield
Riffe, Marion	SATC	Com	•	Galatia
Riley, John Stewart	SATC	LAS	80	† † Otterbein, Ind.
Rinck, Franklin Bliss		ChE	91½	† † Rockford
Ring, Robert Mason	SATC	LAS	•	† † Rock Island
Ringelsen, Hazel Novella		LAS	100	•
Ripley, Dorothy Susan		Com	•	† † Noble
Rising, John Daniel		Com	•	† † Toledo, O.
Risley, Ralph Edwin	SATC	ME	66½	† † Chicago
Riss, George Ralph	SATC	LAS	76	† † Champaign
Risse, Bernard William	SATC	LAS	•	† † Decatur
Ritcher, Henry Adelbert		SS	40½	† † Streator
Ritchie, Birney George	SATC	Com	•	† † Springfield
Ritchie, George Paul	SATC	LawP	•	Troy
Ritsch, Howard Paul	SATC	Com	32	† † Morrison
Rittel, Carter Russell	SATC	Com	•	† † Centralia
Rittenhouse, Donald Arter	SATC	EE	72	† † Chicago
Ritter, Harry Curtis	SATC	ME	•	† † Elkhart, Ind.
Ritzman, Harry Edward	SATC	ME	•	† † Cairo
Rizer, Conrad Kuhl	SATC	Agr	•	† † Chicago
Roach, Alden Gallup	SATC	CE	•	† † Freeport
Roan, Charles Frederick	SATC	MdP	•	† † Champaign
			•	† † St. Louis, Mo.
			•	† † Chicago

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Robb, Zenas Allan	SATC	Agr	25	• †	Swanwick
Roberts, Charles Sylvester	SATC	LAS		• †	Danville
Roberts, George Clarence	SATC	Com		• †	Villa Grove
Roberts, Henry Owen	SNTC	ME		• †	Rock Island
Roberts, Lois Madeline		SS	126½	•	Decatur
Roberts, Paul Alkire	SATC	ChE		•	Danville
Robertson, Alfred James		SS	7½	•	St. Cloud, Minn.
Robertson, Claron Atherton	SATC	LAS		•	Flora
Robertson, Edna Maude		LAS	74	• †	Champaign
Robertson, Ina Cullom		SS	49½	• †	Centralia
Robertson, Lucile Gladys	HELAS			• †	Barrington
Robertson, Robert Bruce	MdP			• †	Chicago
Robertson, Robert Crawford	MdP		65	• †	Coullerville
Robeson, Frank Kern, Jr.	Com		30	• †	Champaign
Robinson, Arthur Selden	CE			• †	River Forest
Robinson, Edgar Hopkins	SATC	CE		• †	Fulton
Robinson, Harry Alma		EE		• †	Tulsa, Okla.
Robinson, Hobart Clay	SATC	Agr	28½	• †	Kansas
Robinson, Juanita Celestia		LAS		• †	Sioux City, Ia.
Robinson, Leon Wood		EE	34½	• †	Watertown, N. Y.
Robinson, Mary Katherine		LAS	67	• †	Bloomington
Robinson, Mary Margaret	HELAS			• †	Odin
Robinson, Myra Jane	LAS(SS)		109	•	Kansas
Robinson, Ray Mudge	ChE		97	•	Watertown, N. Y.
Robinson, Sarita, A.B., 1917	Lib		21	• †	Sioux City, Ia.
Robison, Ray Dewey	SNTC	Agr		• †	Ferris
Robnett, Margaret		SS	2	•	Columbia, Mo.
Roche, Eunice Elizabeth		HELAS		• †	Chicago
Roche, James Harold	SATC	Com		•	Freeport
Rochester, George William		LawP		•	Marion
Rock, Gerald Pennell		Com sp		•	Chicago
Rock, Hazel La Rue		Com		• †	Canlon
Rockwell, Albert Willis	SATC	Com		•	Kenilworth
Rode, Esther Frieda		HEAgr		• †	Granite City
Rodecker, Alfred Wilson		MdP		•	Indianapolis, Ind.
Rodewald, Charles William	SNTC	ChE	70	• †	Rushville
Rodgers, Charles Andrew		CerE	90	• †	Monmouth
Rodgers, Lorraine Marjorie		SS	2	•	Waverly
Rodgers, Perry Harrison		LAS	73	• †	Atwood
Rodgers, William Henry		EE	32	• †	Monmouth
Rodler, Waldo Edward	SATC	ME		•	Davenport, Ia.
Rodman, Mrs. Blanche		Mus sp		•	Tuscola
Rodman, Mary Isabelle		SS	5	•	DuQuoin
Roe, Elizabeth Ellen		SS	1	•	Champaign
Roesler, Mathew George	SATC	CE		•	Ottawa
Rogers, Homer Benjamin		CE		•	Aurora
Rogers, Russell Robert	SATC	CE		•	Oak Park
Rohe, Elmer Milton	SNTC	CE	30	• †	Blue Island
Rohrbough, Elsie Gwendolyne		LAS	99	• †	Salem
Rohrig, Helen Barbara		Com		•	Harvey
Roland, Robert Hood		Agr	37	• †	Nahant, Mass.
Roll, Gilbert Arthur		ChE	35	• †	Blue Island
Rollins, Neta		LAS	105	•	Kankakee
Rollston, Lila Gertrude		SS Lib sp		•	Branson, Mo.
Ronalds, Francis Spring		LAS	41	•	Champaign
Ronig, John William		CE		•	Kewanee
Root, Gordon Alexandre	SATC	Agr		•	Morris
Root, William Ruffe	SATC <sup>1</sup>	ME		• †	Terre Haute, Ind.
Rose, Charles Chapman	SATC	ChE		•	White Hall
Rose, Charles Imse		ChE		•	St. Louis, Mo.
Rose, Floyd Ames	SATC	ChE	8	•	Sycamore
Rose, Lena Belle		LAS	33	• †	Urbana
Rose, Myron Potter		MdP		• †	Champaign
Rosebraugh, Linder William		Com	30	• †	Charleston
Rosebraugh, Willard Hopkins	SATC	ME		• †	Charleston
Rosecrans, Crandall Zachariah		ME	110	•	Champaign
Roschill, Clarence Arthur	SATC	ME		•	Joliet
Roseman, Fidelio Alexander	SATC	EE	2	• †	Danville
Roseman, Irving Howard		Com		• †	Chicago
Rosen, Samuel David	SATC <sup>1</sup>	Agr		• †	Chicago
Rosenblum, Berdice		Mus	41½	• †	Waukegan
Rosenblum, Somalia La Vita		LAS	65	• †	Chicago
Rosenberg, Alexander	SATC	Jnl		• †	Bayonne, N. J.
Rosendale, Harold	SATC	ME		• †	Chicago
Rosenfeld, Le Roy Leonard	SNTC	Com	54	• †	Chicago
Rosenkrans, Wayne Le Roy		ME		• †	Paw Paw
Rosenquist, Carl Martin		Agr	30	• †	Mitchell, S. D.
Rosenquist, Walter Ernest	SATC	Agr		•	Princeton
Ross, Eva Elizabeth		Com		•	Champaign
Ross, Harley Matthew	SATC	ME		•	Morrison
Ross, Harry Albert, B. S., 1917		LAS irr	134	•	Champaign
Ross, Harry Erwin		ChE		•	Benlon Harbor, Mich.

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Rossi, Alessandro Kane	SATC	LowP	•	Chicago
Routh, Thomas Rex	SATC	EE	• †	Galesburg
Rowatt, Paul		Com	• †	Corlerville
Rowe, Arthur Wilson	SNTC	ME	• †	Chicago
Roy, Beulah Constance		LAS	• †	Tuscola
Roy, Manmatha Nath		ChE	• †	Krishnajor, India
Roy, Walter Dewey	SATC	Com	•	Pesotum
Royer, Lorena King		SS	4	Warren, O.
Rorse, Mrs. Iram Obil		Mus sp	•	Columbia, Mo.
Rubel, Ira Washington	SATC	Com	•	Chicago
Ruble, Robert Adrian	SATC	ME	•	Aurora
Ruble, Robert Werke	SATC	Com	•	Churubusco, Ind.
Ruckman, Kathleen Margaret		LAS	33	† Champaign
Ruckmach, Herbert Carl	SATC	ME	• †	Brooklyn, N. Y.
Rudd, Melvin Eugene		ChE	• †	West Chicago
Rudicil, Elzie Lorin	SATC	Agri	•	St. Joseph
Rudolph, Chalmer Freemont	SATC	LAS	•	Paxton
Ruehe, Mrs. Olive B. B.S., 1916		Mus	• †	Urbana
Ruel, Golden John	SATC	Com sp	•	Green Bay, Wis.
Rugg, Ruth Genevra		Chem	• †	Olney
Ruhl, Herbert Alfred	SATC	Com	• †	Davenport, Ia.
Ruhle, George Cornelius Frederick	SATC	ChE	31	† Kankakee
Rummel, Evelyn Agnes		LAS	65	† Enden
Rumsey, Zilla		LAS	30	† Muscatine, Ia.
Rumpe, Marie Belle		SS	13½	† Christman
Runyan, Marcus Eugene	SATC	LAS	•	Chicago
Rupp, Norris Sydney	SATC	CE	• †	Aurora
Rust, Clara Lillian		HELAS	47	† Detroit
Ruth, Harriet Margaret		LAS	7½	† Detroit
Rush, Madge		Mus	68½	† Urbana
Rushing, William Strleton	SATC	LowP	•	Benton
Rushton, Sydney Baden	SATC	Com	• †	Chicago
Russakov, William Irwin	SNTC	AE	35	† Chicago
Russell, Charles Chauncy		ChE	74	† Joliet
Russell, Charles Clifton		Agri	99	† Urbana
Russell, Clarence Callahan		Com	• †	Tiskilwa
Russell, Gentry Thomas	SATC	Com	•	Frankfort, Ind.
Russell, Helen Mary		Jnl	•	Champaign
Russell, Mary Dunlap		HELAS(SS)	55	† St. Louis, Mo.
Russell, William Bradford	SNTC	ME	40	† Joliet
Rust, Louis Ernest		Agri	37	† Sibley
Rutenber, Robert Terry		Com	•	Kansas City, Mo.
Rutherford, Elizabeth Jane		LAS	101	† Oakland
Rutherford, Harriet		LAS	30	† Oakland
Rutherford, Harlan Brown		LAS	•	Newman
Rutishauser, Donald Ernest	SATC	ME	•	Chicago
Rutledge, Margaret Emma		HELAS(SS)	69	† Champaign
Ryan, Alice Reynolds		HELAS	•	Chicago
Ryan, Edward Joseph		AE	•	Peoria
Ryan, Howard Robert	SATC	EE	100	† Elgin
Ryan, Lawrence Donald	SATC	M&P	•	Kewanee
Ryan, Walter Richard		LAS	105	† Alton
Rycroft, Herbert Dyson		LowP	26½	† Chicago
Ryder, Earl		LAS	25½	† Springfield
Pyneanson, Earl Stout	SATC	AE	•	Dixon
Rystrom, Charles Hugh	SATC	CE	• †	Rockford
Sae, Harold Henry	SATC	Com	• †	Delavan
Sahn, Allen Lucien	SATC	M&P	22	† Sullivan
Sahn, John Philip Jr.	SATC	LAS	• †	South Bend, Ind.
Sadler, Harold Frank	SATC	Com	34	† Grove City
Sadorus, Mary Aetna		Mus sp	• †	Sadorus
Saffer, Rex Eugene	SATC	LAS(SS)	29	† Urbana
Saffer, Maurine Alice	SATC	ChE	•	Peoria
Safford, Paul Wilbur	SATC	ME	•	Rockford
Sagara, Shunt		ChE	62	† Kumamoto, Japan
Saven, Eph. Anna Marion	SATC	EE	39	† La Grange
Saxer, Gladys Elizabeth		HELAS	•	Belvidere
Saha, Anant Paiva		ME	13	† Bjorneborg, Finland
Sahud, William Harry	SATC	Jnl	38	† Chicago
Saidla, Helen Louise		Com	• †	Darlington, Ind.
Sailer, Frank, B.S., 1918		SS	138½	† Chicago
St. Cardoso, Chris Victor		LowP	28½	† Canton
Sale, Cora Virginia		LAS(SS)	35	† Urbana
Sailadin, George Edward, Jr.		Com	127	† Lincoln, Neb.
Saizenstein, Louis Charles	SATC	Com	32	† Milwaukee, Wis.
Samford, Frank Dennis		LAS sp	2	† Ciske
Sammons, Loraine Aelaide		LAS	• †	Huntington, N. Y.
Sample, Fred Louis		Com	• †	Janesville, Wis.
Sample, Harold Scrogin	SATC	Com	• †	Janesville, Wis.
Sampson, Russell Ervar		Agri	4	† Washington
Samuels, Merton Edward		LAS	•	Chicago
Sanders, Mrs. Ella Pickles		SS	79½	† Gorenville
Sanders, John Alfred	SATC	Com	30	• † La Crosse, Wis.
Sanders, Wm. Gillespie, A.B., 1902		Ltb	•	Georgetown, Tex.
Sanders, Paul	SATC	CE	•	Benton

Sanders, William Chapple	SATC	ME		•	†	Ottawa
Sanders, William Howard	SATC	LAS	60	•	†	La Crosse, Wis.
Sanderson, Arthur Kingston		ME	106	•	†	Aurora
Sanderson, La Verne Kenneth	SATC	Agr		•	†	Lebanon
Sandler, Edward Adolf		Lcw	28	•	†	Chicago
Sands, Lewis Morgan	SATC	Com	63	•	†	Tolono
Sandstrom, Reuben Swan	SATC	AE		•	†	Chicago
Sandusky, Eleanor Elizabeth		HELAS		•	†	Calvin
Sanmann, Frank Paul		Agr	16	•	†	Honona
Sapp, Kenneth Finch	SATC <sup>1</sup>	Com		•	†	Ottawa
Sargent, Algernon Millar		MdP		•	†	Lincoln
Sarven, James David		MdP(SS)	59½	•	†	St. Petersburg, Fla.
Sassman, Howard	SATC	Com		•	†	Chicago
Sato, Atsushi		Agr 59		•	†	Japan
Sato, Michio		EPH		•	†	Hiroshima, Japan
Sattley, Hope Cody		C&E		•	†	Chicago
Sauter, Hugo John	SATC	Com		•	†	Chicago
Savage, Arthur Howard	SATC	CE		•	†	Macomb
Savage, Edwin Waters		LAS		•	†	Weston
Savage, Roland Walton	SATC	LAS		•	†	Eastville
Savage, Willard H	SATC	Com		•	†	Elgin
Sawyer, Isaac Cornelius		C&E	72	•	†	Streator
Saxon, William Hymen		Agr		•	†	Springfield
Sayre, Walter Louis	SATC	ME		•	†	Chicago
Scaggs, Hannah May		LAS	28	•	†	Elgin
Scaggs, Pearl Rose		LAS	71	•	†	Longton
Scanlan, Chester Jerome		ME	108	•	†	Longton
Scanlan, Clarence Edward	SATC	Com		•	†	Bloomington
Schaefer, Abby Conway		HELAS	104½	•	†	Freeport
Schaefer, Harold John	SATC	C&E	19	•	†	Richmond, Ind.
Schaeffer, Dorothea Mae		HELAS		•	†	Streator
Schafer, Louis Emerson	SATC	AE		•	†	Alexandria
Scharfenberg, Frank Alfred Elmer	SATC	Com		•	†	Mt. Pleasant
Scharfenberg, Karl Julius Robert	SATC <sup>1</sup>	Com		•	†	Streator
Schaub, Frederick Weizett	SATC	Chem		•	†	Streator
Schaub, Lisle Chester		EE		•	†	Decatur
Scheid, Jacob P. A.B., 1913		SS	140½	•	†	Chicago
Scheinman, August J		Lcw		•	†	Freeburg
Scheinman, Fred William		CE		•	†	Urbana
Schell, Lillian Katherine		HEAgr		•	†	Urbana
Schell, Robertson William		Agr	34½	•	†	Polo
Schenkel, Elmer Henry	SATC	Agr		•	†	Waukegan, Ill.
Schick, Lincoln George	SATC	Com		•	†	Chicago
Schierbaum, Edna Hulda		HEAgr	34	•	†	La Crosse, Wis.
Schierbaum, Ethel Helen		SS	70½	•	†	Strongsville
Schilling, Eugene Washburn		EE		•	†	Strongsville
Schilling, Melaine Anna		Chem	70	•	†	Yonkers, N. D.
Schilacks, Henry Valentine		EE	111	•	†	Chicago
Schilacks, Nicholas Francis	SATC	ME	26	•	†	Chicago
Schlapprizzi, Fred Henry		Com		•	†	Chicago
Schlechter, Herbert Walter	SATC	CE		•	†	St. Louis, Mo.
Schloss, Harold Julian		Agr(SS)	108	•	†	Fessenden, N. D.
Schluter, Paul August	SATC	Com		•	†	Terre Haute, Ind.
Schlutius, George William	SATC	AE	12½	•	†	West Chicago
Schmaelzle, Otto Ignatius	SATC	LAS	68	•	†	St. Louis, Mo.
Schmalmaack, Charles Louis		EE	29	•	†	St. Louis, Mo.
Schmeltzer, Chauncey Brockway		CE	133	•	†	Charleston
Schmidgall, Arthur Henry	SATC	CE		•	†	Macomb
Schmidt, Alfred Henry	SATC	Agr		•	†	Marysville
Schmidt, Elmer	SATC	Agr		•	†	Honona
Schmidt, Kaspar George	SATC	Com		•	†	LaSalle
Schmidt, Oscar William	SATC	Com		•	†	Elgin
Schmidt, Walter Eugene Starr	SATC	Com	8	•	†	Edwardsville
Schmitt, Arthur Earl	SATC	EE	73	•	†	Chicago
Schmitt, Herbert John	SATC	CE	34	•	†	Mt. Vernon
Schmoeller, Arthur William	SATC	Com	31	•	†	Chicago
Schmalze, Paul Eugene	SATC	C&E		•	†	Alton
Schneider, Delmont Joseph		MSE	109	•	†	Chicago
Schneider, Esther Frederica		HELAS(SS)	49	•	†	St. Louis, Mo.
Schneider, Hardy Richard	SATC	C&E	29	•	†	Urbana
Schneider, Nora Wilhelmine		Chem(SS)	107	•	†	East St. Louis
Schneider, Ralph Fred		Chem(SS)	99½	•	†	Urbana
Schnellbacher, Jacob Paul		Com	97	•	†	Wheatland, Ill.
Schneller, Millard Robert	SATC	EE		•	†	Peoria
Schock, Jean Adam	SATC	Com	28	•	†	Chicago
Schoeffler, Oscar August Edmond	SATC	Com	34½	•	†	Chicago
Schoemann, Alexander Frankenthal		EE		•	†	Alton
Schoen, Jeanette		Agr	104	•	†	Mt. Lebanon
Schoening, Earl Frederick	SATC	Com	32	•	†	St. Louis, Mo.
Schofer, Everett Emmerson	SATC	ME		•	†	Chicago
Schofield, William Henry, Jr.	SATC	Com		•	†	Madison
Scholz, Jessie Pauline		LAS		•	†	Chicago

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Schooley, Clarence Herschel	SATC <sup>1</sup>	Com		• † †	Eggingham
Schooley, David	SATC	Com	13½	• † †	Kilmundry
Schori, John Wheeler	SATC <sup>1</sup>	MdP		• † †	Elmwood
Schori, Rudolph Russell	SNTC	Agr	10	• † †	Elmwood
Schott, John Theodore	SATC	EE	72	• † †	Quincy
Schrader, Dayton Oscar		LAS(SS)	72½	• † †	Bridgeport
Schrader, Frances Emma		LAS	8	• † †	Clifton
Schrader, Frederic Porter	SATC	CE		• † †	Clifton
Schroer, Morris	SATC	ChE	101	• † †	Chicago
Schreiber, Edwin Henry		SS	20½	• † †	St. Louis, Mo.
Schrock, Clayton Bazel	SNTC	ME		• † †	Normal
Schrock, Sterling Donald	SATC	Com		• † †	Dixon
Schroeder, Lucile Kathleen		LAS		• † †	Geneseo
Schroeder, Paul Otto Edward	SATC	ME		• † †	Altamont
Schueler, Walter Francis	SATC	ChE	33½	• † †	Niagara Falls, N. Y.
Schuessler, Robert Lee		Com	90	• † †	Ashland, Ala.
Schuh, Charles Redden	SATC	Com	64	• † †	Cairo
Schujahn, Irene Katherine Marie		LAS	24	• † †	Mt. Olive
Schuler, George Louis	SATC	ME		• † †	Dixon
Schuler, Dement		Com	88	• † †	Dixon
Schultz, Clarence William	SATC	EE	92	• † †	Harvard
Schulze, Ella Rosell		LAS		• † †	Pinckneyville
Schumacher, Arthur Frank	SATC	ME		• † †	Chicago
Schumann, Irene Patricia Mary		LAS		• † †	Chicago
Schwaab, Arthur Anthony	SATC	ChE		• † †	Collinsville
Schwagmeyer, Emil Henry		Com	68	• † †	Quincy
Schwalbe, Mrs. Isabelle Sanderson		Mus	56	• † †	Champaign
Schwartz, Frank Paul		Com(SS) sp	5½	• † †	Ambia, Ind.
Schweich, Julius Sachs	SATC	Chem	65½	• † †	St. Louis, Mo.
Schweitzer, Edward Charles, Jr.		CE		• † †	Chicago
Schwenk, Elwood Edgar	SATC <sup>1</sup>	AE		• † †	Rock Falls
Sconce, Frances Emily		LAS	55	• † †	Sidell
Scott, Bernyce Jeanette		SS	15	• † †	Galesburg
Scott, Esther Selb		LAS	100	• † †	Venice
Scott, Gladys Russell		HELAS	93	• † †	Xenia, O.
Scott, John Quinton	SATC	Agr		• † †	Wapella
Scott, Leonore Sarah		HELAS	29	• † †	Venice
Scott, Lois Marie		LAS	99	• † †	Mattoon
Scott, Marvin Joseph	SATC	LawP		• † †	Grayville
Scott, Mary Stanhope		LAS	28	• † †	Lampasas, Tex.
Scott, Orval Glenn	SATC	Chem		• † †	Camargo
Scott, Percy Ernest	SATC	LAS		• † †	Vincennes, Ind.
Scott, Theodore John	SATC	Com		• † †	Venice
Scott, Victor	SATC	ME		• † †	Scottland
Scott, Weilington Whitaker	SNTC	Com	27	• † †	Grundy Center, Ia.
Scudamore, Thelma Calla		LAS		• † †	Flora
Seaborg, Anna Catherine		SS	5	• † †	Lockport
Seaman, Ralph Raymond	SATC	Agr		• † †	Arthur
Sears, Margaret Denton		Agr		• † †	Urbana
Secker, Franklin John	SATC	ME		• † †	Freeport
Sederstrom, Elmer Gerhard	SATC	MdP		• † †	Montevideo, Minn.
Sedgley, Arlos R	SATC	Arch	71	• † †	Omaha, Neb.
Seelye, John Arvel	SATC	LAS		• † †	Manito
Seever, Samuel		Agr sp		• † †	Chicago
Segal, Perry	SATC	Com	32	• † †	Chicago
Segur, John Bartlett		Chem	104	• † †	Watseka
Seibert, Clarence Samuel	SATC	ChE		• † †	Riverside
Seibert, George Clement	SATC	AE	69	• † †	Altamont
Seidel, Gustave Adolph	SATC	ME		• † †	Harvey
Seidel, Richard Theodore	SATC	Agr	59	• † †	Chicago
Seifried, Lester Lincoln	SATC	EE	34	• † †	Maywood
Seiler, Rex Hanna	SATC	Com		• † †	Pana
Seitz, Charles Frederick, Jr.		Com		• † †	Chicago
Seitz, William Anfield	SATC	AE	30	• † †	Mt. Carmel
Sellmer, Helen Emma		Chem	65	• † †	Moline
Sen, Chi Ming		ME		• † †	Tung Chen, China
Seward, Doris Naomi		LAS	61	• † †	Watska
Sewell, Augusta Fern		Mus	20	• † †	Chicago
Sexauer, Howard Theodore	SATC	Agr		• † †	Belvidere
Seyler, Elmer Conrad	SATC	EE		• † †	Nashville
Seymour, Arthur Romeyn, B.L., 1894, M.L., 1897, Ph.D., 1907		Mus irr	4	• † †	Urbana
Seymour, Burleigh Beaumont		MixE	37	• † †	Benton
Seymour, Russell		AE	44	• † †	Oakwood
Seyster, Lois Ferne		Jnl	98	• † †	Champaign
Shackelford, Pearl Stevens		LAS		• † †	Lexington, Ga.
Shade, Claude Cloide		Agr	68	• † †	Urbana
Shade, Dorothy		LAS	66	• † †	Lexington
Shade, Mary Marguerite		LAS	58	• † †	Montpelier, Ind.
Shafer, Paul Emerson, B.S., 1915		SS	7½	• † †	Rockford, Ia.
Shaffer, Elmer Martin	SATC	Com		• † †	Urbana
Shaffer, Susan Kurzenknabe		LAS	93	• † †	Maywood

<sup>1</sup>"Enrolled" in the S. A. T. C., but not inducted.

Shaffer, Wilhelmine		Jnl	101	* † † Maywood
Shambo, Roy Edwin	SATC	CE		* † † Aurora
Shand, Edwin William	SATC	EE		* † † Riverside
Shand, Richings James, Jr.	SATC <sup>1</sup>	EE		* † † Springfield
Shannon, Lester Robert	SATC	MdP		* † † Marinton
Shapiro, Ben		Arch	76½	* † † St. Louis, Mo.
Shapiro, Benjamin Edward	SATC	LAS	105	* † † Chicago
Sharp, Elizabeth Josephine		Com		* † † Harrisonville, Mo.
Sharp, Henry Cordes	SATC	ChE		* † † Chicago
Sharp, Mildred		SS	56	* † † Mattoon
Shaver, Elizabeth Fritzen		SS	22	* † † Gibson City
Shaver, Theron Maxton	SATC	AE		* † † Marseilles
Shaw, Benjamin Thomas		EE	32	* † † Dixon
Shaw, Horace Bateman	SATC	LAS	25½	* † † Montgomery, Ala.
Shaw, Delia		HELAS	66	* † † Rockport
Shaw, Howard Chase	SATC	ME		* † † River Forest
Shaw, Lester Jared	SATC	LAS		* † † Oak Park
Shaw, Mary Louise		HELAS	96	* † † Harrisburg
Sheadle, Gertrude Steele		LAS	62	* † † Rochelle
Shedden, Russell Norton	SATC	CE		* † † Elgin
Sheean, Hugh Joseph	SATC	Com		* † † Pana
Sheerer, Gertrude Elizabeth		SS	134	* † † Hammond, Ind.
Sheets, Edward Bernard	SATC	EE		* † † Lincoln
Sheffer, Charles Erven	SATC	EE		* † † Lyons, Ind.
Sheldon, Beulah Mulford		LAS	96	* † † Chicago
Sheller, Charles Henry	SATC	Com	16½	* † † North Manchester, Ind.
Shepherd, Osborne	SATC	ME		* † † Elgin
Sheppard, Leila Margaret		Mus	68	* † † Edwardsville
Sherertz, Everett Lorren	SATC	CE		* † † Marion
Sherman, Caroline Elizabeth		HELAS	97	* † † Vienna, Va.
Sherrard, Joseph Rolland	SATC	ME		* † † Cambridge
Shewhart, Harry Anthony		Jnl		* † † New Canton
Shine, Raymond	SATC	Com	28½	* † † New Albany, Ind.
Shinneman, Vern Lawrence	SATC	Com		* † † Weldon
Shirley, Blanche Gertrude		Jnl	34	* † † Benton
Shoemaker, Paul Beach	SATC	EE	35	* † † Cedar Falls, Ia.
Shonkwiler, Robert Payson	SATC	LawP	36	* † † Monticello
Shoop, Arnold Chaney		Com	29	* † † Washington, O.
Short, William Carl		LAS		* † † Moweaqua
Showalter, Rebecca Orpha		LAS(SS)	6	* † † Fountain City, Ind.
Shrader, Naomi		Agr	92	* † † Kansas City, Mo.
Shrimplin, Pearl Marie		HELAS	52	* † † Sheldon
Shroyer, Amy Vann		LAS		* † † Urbana
Shroyer, David Mirven		Agr	105	* † † Urbana
Shuman, Frank Hamilton	SATC	Agr	12	* † † El Paso
Shumway, Frederick Weston	SATC	LAS(SS)	123	* † † Chicago
Shurtz, William Gooding		Com	8	* † † Champaign
Shutt, Adra Lillyan		Mus		* † † Champaign
Shy, Clifford De Witt	SATC	Com		* † † Olney
Sickel, Adolph Helmuth		ME		* † † Stuttgart, Ark.
Sickler, Kenneth Leroy	SATC <sup>1</sup>	EE		* † † Moline
Sickman, Florence Anne		Mus		* † † Urbana
Sideman, Benjamin	SATC	CE	69	* † † Chicago
Sieber, George Edward	SATC	EE		* † † Evansville, Ind.
Siefferman, Frank Raymon	SATC	MdP		* † † Grayville
Siegel, Abraham	SATC	Com		* † † Chicago
Siegert, Ewald Ernest	SATC	CE		* † † Pana
Sieglinger, Frank Vernon	SATC	Com	66	* † † Sterling
Siegrist, Louis Arnold		Chem	32	* † † Highland
Siemens, George Mellin, Jr.		Com	24	* † † Kansas City, Mo.
Sigel, Louis Leonard	SATC	MdP		* † † Chicago
Sigel, Sidney Orville <sup>2</sup>		CE	104	* † † Chicago
Sigridson, Ebba Beatrice		HEAgr	96	* † † Geneva
Signor, Ruth Husted, A.B., 1910		LAS irr	130	* † † Urbana
Sikes, Alfred Wallin	SATC	ChE	32½	* † † Chicago
Sikkema, Harold Lee Roy	SATC	EE		* † † Fulton
Simmon, Allen Ambrose	SATC	Com	27	* † † Moline
Simmons, Elwyn Leroy	SATC	AE	116½	* † † Oak Park
Simmons, George Haskell		EE	104	* † † Aron
Simmons, Georgia Lee		LAS		* † † Le Roy, O.
Simmons, Waldo Emerson	SATC	ME		* † † West Point
Simmons, Walter Wallace	SATC	ME	28	* † † West Point
Simms, Ellvine Inistore		HEAgr		* † † Emmelle, Ala.
Simon, Abe Harry	SATC	Com	33	* † † Chicago
Simon, Philip Jerome	SATC	EE		* † † Chicago
Simonich, Louis James	SATC	EE		* † † Chicago
Simonin, Joseph Rice	SATC	ME		* † † Joliet
Simons, Joseph		ChE	107	* † † Hillsboro
Simons, Philip Gardner	SATC	ChE(SS)	33	* † † Chicago
Simpson, Clarence Elden	SATC	ME		* † † Chicago
Simpson, Doris Jeannette		HELAS		* † † Downs
				* † † Flora

<sup>1</sup>"Enrolled" in the S. A. T. C., but not inducted<sup>2</sup>Deceased.

Simpson, Irene Elizabeth	LAS(SS)	92½	• † †	Pana
Simpson, Kenneth Franklin	Law sp		• † †	Onawa, Ia.
Simpson, Merrill Willis	SATC Com		• † †	Rockford
Sinclair, Paul Davis	SATC Com		• † †	Mason
Sinden, Alfred De Los	SATC ME	33	• † †	Canon City, Colo.
Singer, Raymond Barker	SATC Agr		• † †	Urbana
Singh, Kehar	MDP	26	• † †	Punjab, India
Skaer, Edwin William	SS	33½	• † †	Belleisle
Skaags, Rubye Mariam	LAS		• † †	Hobart, Ind.
Skelly, Ernest James	Com	60½	• † †	Davenport, Ia.
Skemp, Edith Elizabeth	LAS	15	• † †	Maywood
Skiles, Earl William	SATC Com		• † †	Grayville
Skinner, Bertram Eugene	Agr	101	• † †	Chicago
Skinner, James Clayton	SATC EE		• † †	Yates City
Skinner, James Madden	SATC ChE	20	• † †	Joliet
Skirrow, Jack	SATC CE		• † †	Chicago
Skoglund, Reuben Adolphus	Agr	64	• † †	Red Wing, Minn.
Slade, Elizabeth Muriel	HEAgr	84	• † †	Rockford
Slagle, David Carlton	SATC LAS	19	• † †	Chicago
Slater, Edgar Otis	SS	1½	• † †	Hamlin, Kan.
Slaughter, Harvey Leroy	SATC Com		• † †	Winner, S. D.
Sleezer, Marion Winnifred	LAS	15	• † †	Paxton
Sleph, Irving Edward	SATC ChE	47	• † †	Chicago
Sloan, Arthur William	Chem		• † †	Urbana
Sloan, Deena Agnes	HELAS(SS)	104	• † †	Urbana
Sloan, Madelene Rebina	HEAgr	100	• † †	Urbana
Slocum, Russell Wade	Agr	76	• † †	Chicago
Slusser, Harry Ernest	SS		•	Martinsville
Slygh, Leland Dodsworth	SATC Agr		•	Toulon
Smart, Howard Harlow	Agr	52	• † †	Scales Mound
Smejkal, Frank Harvey	SATC CE	31	• † †	Chicago
Smejkal, Richard Edward	SATC CE	12	• † †	Chicago
Smidl, Joseph	SATC EE		• † †	Chicago
Smith, Alfred Andrew Kittoe	SATC Com		• † †	Chicago
Smith, Alva Douglass	SS	7½	•	Brazil, Ind
Smith, Anne Elizabeth	HEAgr	118	•	Chicago
Smith, B Howard, Jr.	Jnl	58	• † †	Kansas City, Mo.
Smith, Cecil Homer	LAS		•	Mt. Vernon, Mo.
Smith, Cecil Ray	SATC Com		• † †	Goreville
Smith, Charles Cobb	SATC EE	36	• † †	Chicago
Smith, Cloyde Moffett	MinE	72	• † †	Champaign
Smith, Daniel Willard	LAS	32	• † †	Bellflower
Smith, David Galbraith	SATC Agr		• † †	Carthage
Smith, Dorothy Edna	Jnl		• † †	Momence
Smith, Dorothy Margaret	LAS		• † †	Champaign
Smith, Dorothy May	LAS		• † †	St. Louis, Mo.
Smith, Edmund Joseph	SATC Chem	56	• † †	Chicago
Smith, Edward Magruder	Agr	8	• † †	Chicago
Smith, Eleanor	LAS		• † †	Chicago
Smith, Elizabeth Belle	LAS(SS)	101	• † †	Carthage
Smith, Elsie Webb	LAS	19½	• † †	DuQuoin
Smith, Emily Evelyn	HEAgr (SS)	33	• † †	Champaign
Smith, Eugene Frederick	SATC ME	34½	• † †	Chicago
Smith, Eunice Edwina	LAS	65	• † †	Chicago
Smith, Florence Chafee, A.B., 1917	Agr irr	120	• † †	Normal
Smith, George Earnest	Com		•	Springfield
Smith, George Edward	Agr	60	• † †	East Lynn
Smith, Glenn Fedaas	SATC Com		•	Rockford
Smith, Harley	Mus sp		•	Quinlan, Tex.
Smith, Henrietta Eleanor	LAS		• † †	Rock Island
Smith, Ione Margaret	LAS	39	• † †	Rochelle
Smith, Jennie Marie	SS	70½	• † †	Benton
Smith, Joseph Edward	ME	48	• † †	Chicago
Smith, Kenneth Leslie	SATC AE	½	• † †	Aurora
Smith, Lawrence DeVere	Com		•	Milford
Smith, Leo Charles	SATC Chem		•	Rossville
Smith, Leonidas Logan	SS	144½	•	Effingham
Smith, Lloyd Lorenzo	RME	32	•	McComb, Miss.
Smith, Lucia Lufkin, A.B., 1913	Agr irr	125	•	Normal
Smith, Marian Esther	LAS		• † †	Champaign
Smith, Marian Kathryn	Agr	100	• † †	Monticello
Smith, Marion Louise	LAS	51½	• † †	DuQuoin
Smith, Maybelle Pritchard	LAS		• † †	Dixon
Smith, Merrill	SATC Com		•	Churubusco, Ind.
Smith, Nellie Ermina	LAS	21	•	Lawrenceville
Smith, Niles Bainbridge	SATC ME	25	• † †	Birmingham, Ala.
Smith, Oliver Francis	SNTC Agr	33	• † †	Broadlands
Smith, Oscar Ray	SATC EE		• † †	Urbana
Smith, Paul Ralph	SATC AE		• † †	Terre Haute, Ind.
Smith, Pearl Marie	LAS(SS)	37½	• † †	Kirkwood
Smith, Ralph Lindon	Agr	99	• † †	Bellflower
Smith, Russell Clark	SATC LAS		•	Chicago

† "Enrolled" in the S. A. T. C., but not inducted.



Smith, Russell Grout		LawP		• † †	DeKalb
Smith, Stanley Constable	SATC	Agr		• •	Chicago
Smith, Steadman Garretson	SATC	LawP	35	• † †	Chicago
Smith, Steele Bryan	SNTC	EE		• •	Palestine
Smith, Thurston Woods	SATC	Com	31	• •	Albion
Smith, Walter Thomas	SATC	MDP		• † †	Oakwood
Smith, Willard Charles	SATC	CE		• •	DeKalb
Smith, William George		Agr		• •	Oglesby
Smithers, Perry Lafayette, Jr.	SATC	Com	57	• •	Wilmette
Smithers, Wilson Cook	SATC	ME		• † †	Wilmette
Smysor, John Leland	SATC	Agr	7	• † †	Windsor
Smythe, Eben Wesley		Chem		• •	Hoopeston
Snell, Gertrude Margaret		LAS		• † †	Oak Park
Snell, Myron Alonzo	SATC	ChE		• † †	Oak Park
Snider, Esther		Com		• † †	Danville
Snively, John Rowe, Jr.	SATC	LawP	65	• † †	Lanark
Snook, Harry Guilford		EE	33½	• † †	Chicago Heights
Snow, Beatrice Nordica		Jnl(SS)	37½	• † †	Chicago
Snyder, Harold Vesey		LAS	72	• † †	Rockford
Snyder, Joseph Burke	SATC	EE		• •	Carleville
Snyder, Laurence Odell	SATC	Com	27	• •	Mt. Pulaski
Snyder, Willard Ayres	SATC	Arch	61½	• † †	Mt. Pulaski
Sohn, Howard Brigham, A.B., 1908		Lib		• † †	Wauseon, O.
Solder, Emma Laura		LAS		• •	Farina
Soldwedel, Carl Frederick	SATC	Agr		• †	Pekin
Soldwedel, Cornelia		HEAgr		• •	Pekin
Soloman, Jacob Solomon	SATC	AE		• •	Chicago
Solowe, Eugene Maxwell	SATC	LAS	32	• •	Kansas City, Mo.
Somers, Donald Ross		ChE		• •	St. Joseph
Somers, Francis Martin	SATC	ME		• †	Champaign
Somers, Helen Frances		HELAS		• †	Urbana
Somers, Paul Peter	SATC	Chem	64½	• † †	Kankakee
Somers, Roland Burrill	SATC	ME		• †	Chicago
Somers, Russell Ivan		LAS(SS)	87	• † †	St. Joseph
Somerset, John	SATC	ChE		• •	Joliet
Song, Elmore	SATC	Com		• •	Chicago
Sontag, Raymond John		Com	75	• † †	Chicago
Sorenson, Marie Nelsena		HELAS		• † †	Savanna
Sorrell, Clifford Hiram	SATC	Com		• •	Tipton, Ind.
Sorrells, Roy La Velle	SATC	Com		• •	Jacksonville
Sottery, Constantine Theodore		SS	4½	• •	Wakefield, Mass.
Soule, John Edward		CE		• † †	Chicago
South, Jacob Dewey	SATC	Agr		• •	Neoga
Souza, Paulo Cuba		Agr	36	• † †	Sao Paulo, Brazil
Soward, Lylian Friscilla		LAS	23	• •	Fithian
Sowers, Herbert Toggart		LAS		• † †	Sireator
Sowers, Mildred Lucille		LawP	33	• † †	Petersburg
Spangler, Rodney Eugene	SNTC	Arch	61	• † †	Amboy
Sparks, Ferne		HELAS		• •	Lincoln
Sparks, Keith Emanuel		Chem	107	• † †	Connersville, Ind.
Sparks, Mary Elisabeth		HELAS		• † †	Lincoln
Sparks, Marion Emeline, A.B., 1895, B.L.S., 1899, A.M., 1900		Chem irr		• •	Urbana
Spates, Gladys Mary		HELAS	68	• † †	Taylorville
Spatny, Zdenka		LAS	100	• † †	Chicago
Speakman, John William	SATC	LAS		• •	Danville
Spears, Robert Minier	SATC	Com		• •	Chicago
Speck, Philippa Bena		LAS	98½	• † †	Peoria
Spelce, John Edward		ChE	84	• † †	Sycamore
Spence, William Kenneth	SATC	ME		• †	Chicago
Spencer, Mrs. Blanche Beebe		LAS(SS)	106	• †	Vandalia
Spencer, Charles Samuel		Chem		• †	Champaign
Spencer, Grace Greenwood		LAS(SS)	8	• †	Payson
Spencer, Hugh Albert Lee		EE		• •	Chicago
Spencer, Mable Agnes		LAS(SS)	8	• † †	Payson
Sperling, Ernest Boyd	SATC	Arch		• •	Urbana
Sperry, Edward Robert		CE		• •	Winchester
Sperry, Myron Edwin	SNTC	Arch		• •	Aurora
Spicer, Ralph Faraday	SNTC	AE		• † †	Joliet
Spicer, William Glenn	SATC	Com	54	• † †	Marseilles
Spiegel, Gilbert Harold		LAS		• •	Hartford, Conn.
Spiegler, Louis	SATC	ChE	87	• † †	Chicago
Spiker, Chalmers Perrine	SATC	Com		• † †	Bushnell
Spiker, Fern Marie		HELAS	60	• † †	Bushnell
Spilver, George Searles	SATC	Chem		• † †	Chicago
Spindler, Carl		ME	73	• †	Peoria
Spindler, David Christopher	SATC	Com	31	• †	Chicago Heights
Spindler, Walter Herbert		CE	76	• †	Peoria
Splain, Eugene Abram	SATC	LAS		• •	Walnut
Spofford, Franklin Dawson	SATC	EE	73	• † †	Warren
Sprague, Alice Cornelia		HEAgr		• †	Lockport
Sprague, George Chester		Agr	88	• •	Lockport
Springer, Lloyd Asbury	SATC	EE	32	• †	Springfield
Springston, George Baillie		Jnl	33	• †	Peoria
Springstun, Humphreys		Law		• †	Pana

Sprawls, Luna Lenore		LAS(SS)	115½	•	†	Gibson City
Squier, Arthur Augur	SATC	ME		•	†	Rockford
Stack, Ellen Frances		LAS		•	†	Aurora
Staehle, Ida Marie		LAS sp		•	†	Joliet
Staehle, Theodore Roosevelt	SATC	ME		•	†	Chicago
Stahl, Cecil Norman	SATC	Com		•	†	Allon
Stahl, Chester Dewey	SATC	EE	67	•	†	Champaign
Stahl, Hannah Rebecca		HELAS		•	†	Champaign
Staley, Elmer George		ME	35	•	†	Le Roy
Staley, Virgil Jackson	SATC	LAS		•	†	Clay City
Stamberg, Frank Ford		MinE	34	•	†	Chicago
Stamm, George Frederic		Agr	65	•	†	Aurora
Stanford, Cloyd Funston	SATC	LawP		•	†	Flora
Stanford, Mabel Julia		HEAgr		•	†	Forrest
Stanford, Ralph Fletcher		EE		•	†	Loda
Stanka, Erhardt William		EE	28½	•	†	Jersey City, N. J.
Staples, Raymond	SATC	CE	2	•	†	South Bend, Ind.
Stark, John Wayne	SATC	Agr	65	•	†	Nebo
Stark, Richard Edward	SATC	CE		•	†	Chicago
Starkes, Reuben Payne		Jnl		•	†	Metropolis
Starr, Howard De Lacy	SATC	ChE		•	†	Anderson, Ind.
Starr, Sidney Keller		Agr	59	•	†	Belvidere
Stateler, Ozell Trask	SATC	Agr	64	•	†	Varna
Stauss, William Clifford	SATC	MinE		•	†	Galena
Steele, Althea Rose		HELAS	60	•	†	Havana
Steffens, George Harold	SATC	ChE	20	•	†	Chicago
Steege, George Richard, Jr.		ChE	34	•	†	Chicago
Stegenga, Clarence Irving	SATC	Com		•	†	Thornton
Stegenga, Gladys		Mus		•	†	Thornton
Steidl, John Henry Joseph Hoose		LAS(SS)	52	•	†	Paris
Steimley, Ruth Starr		SS	4	•	†	Urbana
Stein, Herman William		CE	3½	•	†	Chicago
Stein, Ollie Ella Augustine		Mus sp		•	†	Champaign
Stein, Raymond Simon	SATC	CE		•	†	Mt. Carmel
Stein, Richard Clarence	SATC	ChE		•	†	Mt. Carmel
Steinbach, Carl, Jr.	SATC	ME	20	•	†	Chicago
Steiner, Helen Elizabeth		LAS		•	†	Morrison
Steiner, Jeannie Verle		HELAS	69	•	†	Morrison
Steiner, Loyal F	SATC	Com		•	†	Cissna Park
Steiner, Mabel Katherine		LAS		•	†	Cissna Park
Steinert, Hildur Edith		LAS	35	•	†	Chicago Heights
Steinmetz, John Armand	SATC	Com	25½	•	†	Pekin
Stemwell, William	SATC	CE		•	†	Maywood
Stephens, Beverly William	SATC	LAS		•	†	Lewistown
Stephens, Hazel Margaret		HELAS	99	•	†	Champaign
Stephens, John William	SATC	Com	24	•	†	Wichita, Kan.
Stephens, William Theodore		EE	95	•	†	Champaign
Stephenson, Bird Richard		SS		•	†	Champaign
A.B., 1916, A.M., 1917		Law sp		•	†	Tuscola
Stephenson, Lee Ernest		CE		•	†	DuQuoin
Sterling, James Redfern	SATC	ME	76	•	†	Springfield
Sternaman, Edward Carl		ME		•	†	Allamont
Stettbacher, Herman Harold	SATC	LAS		•	†	Wichita, Kan.
Stevens, Clifford Baldwin	SATC	SS	15½	•	†	Jacksonville
Stevens, Earl Grover		LAS	70	•	†	Oglesby
Stevens, Helen Ford		Com	36	•	†	Wabash, Ind.
Stevens, Raymond La Moine	SATC	ChE	65	•	†	Chicago
Stevens, Roger Greenleaf		LawP		•	†	Champaign
Stevens, Walter Judson		LAS	100	•	†	Freeport
Stewart, Beulah Louise		Agr	16	•	†	Carman
Stewart, Cyrus Byron		LawP		•	†	Plainfield
Stewart, Donald Simpson	SATC	Agr		•	†	Paris
Stewart, James Otto		Mus sp		•	†	Champaign
Stewart, Mrs. Jane		Mus		•	†	Moweaqua
Stewart, Mildred		LAS	37	•	†	Chicago
Stewart, Walter Vanwert	SATC	SS	91½	•	†	Columbus, Ind.
Stewart, William Ellis		SS	104	•	†	Waverly
Stice, Ostin Angus		Agr		•	†	Milford
Stichnoth, August John	SATC	CE		•	†	Milford
Stichnoth, Eddie Frederick	SATC	CE		•	†	Malomet
Stidham, Melissa Geneva		Agr sp	76	•	†	St. Louis, Mo.
Stiegemeier, Clara Marie		SS	132½	•	†	Urbana
Stillwell, Genevieve Maud, B.S., 1918		SS	137	•	†	Gibson City
Stimpson, Ruth Loe Ella		LAS		•	†	Appleton, Wis.
Stimson, Donald Charles	SATC	ME		•	†	Eldorado
Stinson, Clarence Henry	SATC	ChE		•	†	Champaign
Stinson, Howard Willis	SATC	Agr	57	•	†	Champaign
Stipes, George Walter	SATC	Com	23½	•	†	Bunker Hill
Stobie, Gladys May		HELAS	82½	•	†	Rockford
Stockenberg, Ruben	SATC	ME	112	•	†	Birmingham, Ala.
Stockham, Douglass William	SATC	ME	35	•	†	Churubusco, Ind.
Stockert, Homer Sidney	SATC	Agr		•	†	Chicago
Stodard, Edgar Sylvester		ChE	50	•	†	Raymond
Stoevener, Leona Bertha		HELAS	32	•	†	Raymond
Stoevener, Petronilla Gertrude		HELAS	32	•	†	Raymond

Stohrer, Walter Albert	SATC <sup>1</sup>	CE	97	* * †	Chicago
Stoll, Laura Louise		LAS		* * †	Chicago Heights
Stolp, Robert Charles	SATC	MdP		* * †	Aurora
Stoltz, Marjorie Zell		LAS	1	* * †	Champaign
Stoltz, Ernest Bernard	SATC	Com		* * †	Peoria
Stombaugh, Harley Lyon	SATC	ME		* * †	Macon
Stone, Elizabeth Barbara Louise		LAS		* * †	Belvidere
Stone, Everett Wheeler	SATC	CE		* * †	Evanston
Stone, Harry Francis	SATC	Agr		* * †	Danville
Stone, John Le Roy		Agr		*	Moline
Stone, Lowell Vestry	SATC	CE		*	Villa Ridge
Stone, Pearl		LAS		* * †	Moline
Stone, William Samuel		LAS	106	*	Villa Ridge
Stookey, Charles Abram, Jr.	SNTC	Agr		* * †	Belleville
Stoolz, Harry Joe	SNTC	EE		*	Shawnee, Okla.
Stoops, Donald Horatio		Com	17½	* * †	Nappanee, Ind.
Storckman, Clem Franklin	SATC	Law	4	* * †	Mt. Carmel
Storer, Ben Wade	SATC <sup>1</sup>	ME		* * †	Centralia
Storer, Walter Henry	SATC	LAS	103½	* * †	Centralia
Storm, Mabel Fern		LAS	96	* * †	Champaign
Stormont, Lowell Heston		Com		* * †	Indianapolis, Ind.
Story, Claire Franklin	SATC	Arch		*	Le Roy
Stout, Hiram Sybanc	SATC	EE		*	Bellewood
Stover, Earl Bertram		REE	98	* * †	Oak Park
Strabel, Thelma Louise		Jnl(SS)	36	* * †	Urbana
Straight, Leta Lenore		HELAS	67	* * †	Fonda, Ia.
Strange, Russell Hope	SATC	MdP		* * †	Bloomington
Strassel, Gladys Marion		Jnl		* * †	Rockford
Strasser, Joseph Mast	SATC	ME	23	*	Joliet
Strassner, George Francis Xairer		SS		*	Toledo, O.
Stratton, Marion James		Arch		*	Toledo
Straub, Fred Guy		ChE	70	* * †	New York, N. Y.
Straub, Joseph Valentine, Jr.	SATC	Agr	46	* * †	Kansas City, Mo.
Strauss, Caryl Louise		LAS	25	* * †	Urbana
Strauss, Evan Bryson		Com		* * †	Urbana
Strawbridge, Ewart	SATC	Com	59	* * †	Chicago
Streed, Felix Lewis		MSE	136½	* * †	Waukegan
Strehlow, Robert	SATC	CE	39	* * †	Peoria
Strickland, Myrtle Elizabeth		Mus		* * †	Urbana
Strickler, Haven Frank	SATC	LAS		* * †	Lomax
Strohm, Margaret Irene		LAS		* * †	Livingston
Strohm, Raymond Henry	SATC	Com	27	* * †	Elgin
Strombeck, Mearl Donald		EE		* * †	Plymouth, Ind.
Strong, Harry Danford, B.S., 1914	SATC	Agr irr	136	*	Keithsburg
Strossman, Marion Rae		SS	8	*	Aurora
Strouse, Lloyd Glenn	SATC	Com		*	Rantoul
Strouse, Milton Luther	SATC	Com		*	Rantoul
Strout, Frank Hiram	SATC	EE		*	Harvey
Strubinger, Bert Elliot	SATC	LawP		* * †	El Dara
Strubinger, Lucian Hart	SATC	Com		* * †	Barry
Stuart, Roxie Katherine		HELAS		* * †	Quincy
Stubbs, Mary Christine		HELAS	35	* * †	Fowler, Colo.
Stubbs, Sadie Levina		Law(SS) sp	6	* * †	Lincoln, Neb.
Stuckel, Ralph John	SATC	Com		* * †	Lincoln
Stuebe, Louis Frank	SNTC	ChE		* * †	Danville
Stuedeman, Theodore Raymond	SATC <sup>1</sup>	ME		* * †	Sheboygan, Wis.
Stumm, Frank Arthur	SATC	LAS		* * †	Yorkville
Stumpf, Wippert Arnot	SNTC	Com		* * †	Elgin
Sturdivant, William Okeson	SATC <sup>1</sup>	CE		* * †	St. Louis, Mo.
Sturgeon, Lewis Fleming, Jr.	SATC	Agr	29	* * †	El Paso
Sturgeon, Margaret Erma		SS	77	*	Fisher
Stutzman, Ernest J	SATC	Com		*	Elkhart, Ind.
Styles, Dorothy		HELAS	61	* * †	Momence
Suits, Edward Francis	SATC	ME	29½	* * †	Hillsboro
Suits, Howard Lamar	SATC	Agr		* * †	Hillsboro
Sullins, Vivian		LAS		* * †	Marshall
Sullivan, Daniel Edward	SATC	Com		* * †	Gillespie
Sullivan, Edna Frances		HELAS	103	* * †	Champaign
Sullivan, George Cornelius		ME(SS)	68	* * †	Highland Park
Sullivan, Loren Edgar	SATC	LAS		*	Springfield
Sullivan, Virgil Richard	SATC	Chem	33	* * †	Urbana
Summar, Leonard Cecil	SATC	Com		* * †	Harrisburg
Summers, Henry Elmer		Agr sp	84½	* * †	Moscow, Kan.
Summitt, James Levi		LAS	83½	* * †	Pesotum
Sunder, Padma Malla		EE	31	* * †	Khatmandu, Japan
Sunkel, Harold Bernard	SATC	Agr		*	Dudley
Sussman, Irwin Joseph	SATC	Com	47	* * †	Chicago
Sutcliffe, Constance, A.B., 1917		SS	133	*	Urbana
Sutcliffe, Dorothy, A.B., 1916, A.M., 1917		SS		*	Urbana
Sutherland, Leland Goodrich	SATC	Com	69	* * †	Sioux City, Ia.
Sutherland, Wesly Burr	SATC	Com		* * †	Sioux City, Ia.

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Sutherland, William Albert	SNTC	Com	•	Blue Island
Sutphen, Chester Derick	SNTC	ME	•	Oak Park
Sutton, Charles Reuel	SATC	AE	35	• † † Ottawa
Sutton, Earl Clifford	SNTC	EE	•	• † Farmington
Sutton, George Washington, B.S., 1896		SS	14½	• Marietta, O.
Svoboda, Frank Dudley	SATC	LAS	•	• Algonquin
Swanson, Adolph	SATC	ME	•	• Oak Park
Swanson, Carl Emil	SATC	EE	•	• Homewood
Swanson, Elmer Albert	SATC <sup>1</sup>	CE	• † †	• Chicago
Swanson, Franklin Leroy	SNTC	Com	• † †	• Hoopeson
Swanson, Leslie Frank	SATC	Com	•	• Paxton
Swanstrom, Elmer Ephraim	SATC	Com	•	• Loda
Swanton, John Robert	SATC	CE	•	• Hammond, Ind.
Swanzy, Helen Ada		HELAS	• † †	• Ridott
Sward, Lawrence Howard	SATC	Com	30	• † † Chicago
Swartz, Cecil Augustus	SNTC	Agr	• † †	• Williamsfield
Swartz, John Theodore	SATC	Com	• † †	• Urbana
Swearingen, Clair Vere	SATC	CE	• † †	• Champaign
Swearingen, Lellia Fern		LAS sp	28	• † † Champaign
Swearingen, Omer Moore	SATC	EE	•	• St. Joseph
Sweeney, Mrs. Mildred Meyers		SS	130	• Pekin
Swiebert, Ray Leslie	SATC	ME	76	• † † Sterling
Swenson, Carl Adolph		LawP	• † †	• Rockford
Swzey, Roy Winfield	SATC	Com	•	• La Grange
Swick, Mary Ethel, A.B., 1915		SS	•	• Urbana
Swift, Carrie Lucile		SS	4	• Waverly
Swift, Gertrude Lucile, A.B., 1918		LAS irr	132	• † Sreator
Swigart, Theodore Eugene	SNTC	EE	•	• Farmer City
Swiger, Raymond Isaac	SATC	AE	•	• Henry
Swiney, Pearl Frank	SATC	Com	•	• Farmer City
Switzer, George Benjamin	SATC	LAS	• † †	• Plymouth, Ind.
Sylvcs, Samuel Dwight	SATC	Com	31	• † † White Hall
Taber, Albert Warren	SATC	LAS	• † †	• Rock Island
Taber, Edward	SATC	LAS	•	• Rock Island
Taber, Homer Manford	SNTC	ME	•	• Sullivan
Tabor, Hubert Baker	SNTC	Agr	• † †	• Sullivan
Taffie, John Walter	SATC	ChE	• † †	• Chicago
Tait, Mrs. Marguerite Cress		Agr	10½	• Seattle, Wash.
Talbot, Dorothy Newell		SS	4	• Urbana
Talbot, James		Agr	104	• † † Sterling
Tall, Winston Burwell		ChE	• † †	• Chicago
Tambling, Robert Leicester	SATC	ME	•	• Zion City
Tamme, Fred Edward	SATC	EE	•	• Orion
Tanikawa, George Noborn		LAS	• † †	• Florin, Cal.
Tanner, Newell Wilson	SATC <sup>1</sup>	Agr	32	• † † Aurora
Tanton, John Francis		Com	11	• † † Washington
Tao, Hung Tao		SS	4½	• † † Washington, D. C.
Tapscott, Charles Cameron	SATC	Jnl	59½	• † † St. Louis, Mo.
Tarbox, Robin James	SATC	Agr	105	• † † Urbana
Tate, Aubrey Lincoln	SATC	Com	•	• Mattoon
Taubert, Carl August	SATC	Agr	28	• † † Casselton, N. D.
Taylor, Arthur Paul	SATC	Agr	•	• Roseville
Taylor, Berenice Lucile		LAS	•	• Princeville
Taylor, Chalmer Cline	SATC	LawP	66	• † † Le Roy
Taylor, Dalla Alice, A.B., 1910		SS	130½	• † † Champaign
Taylor, Dorothy Leigh		LAS	23	• † † La Grange
Taylor, Elbert Wallace Arnold	SNTC	CE	•	• Litchfield
Taylor, Ella May		LAS sp	•	• Winchester
Taylor, Eugene Emerson	SATC	MdP	•	• Le Roy
Taylor, Mrs. Florence Potter		SS	6½	• Waterman
Taylor, George Arthur	SATC	LAS	35	• Pryor, Okla.
Taylor, George Evans	SATC	LawP	35	• † † Toledo, O.
Taylor, George Y	SATC	EE	•	• Bismarck
Taylor, Glen Lewis		LAS	•	• Belvidere
Taylor, Harold John	SATC	Com	35	• † † Evingham
Taylor, Julius Mark	SNTC	ME	•	• Robinson
Taylor, Kathleen		HELAS	98	• † † Harrisburg
Taylor, Lucile		LAS	32	• † † Los Angeles, Cal.
Taylor, Margery Leeds		Agr	120	• † † Michigan City, Ind.
Taylor, Mary Caroline		SS	•	• Springfield
Taylor, Meredith Delphine		LAS	32	• Genoa
Taylor, Paul Canaday	SATC	Com	67	• † † Mooresville, Ind.
Taylor, Ralph		MinE	•	• Chicago
Taylor, Robert Cook	SATC	Agr	30	• † † Earlville
Taylor, Roy H		Agr	114	• † † Bismarck
Taze, Donovan Long	SATC <sup>1</sup>	ME	•	• † † East Moline
Teale, Edwin Way	SATC	ME	•	• Joliet
Teeters, Esther Gladys		HELAS	41½	• † † Anderson, Ind.
Teeters, Ethalinda Berniece		LAS	•	• † † Auburn, Ind.
Teghtmeyer, Lauren Ewart	SATC	CE	•	• † † Bremen, Ind.
Temple, Claude Marion	SATC	Com	•	• Mattoon

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Temple, George William		Com	7	†	Champaign
Temple, Gilbert	SATC	AE	19	†	Davenport, Ia.
Tendick, John Samuel	SATC	CerE	26½	•	Carlton
Ten Eyck, Paul Bryan	SATC <sup>1</sup>	Com		•	Brodhead, Wis.
Teninga, Alfred John	SNTC	Agr	43	•	Chicago
Tenschler, Raymond Rudolph	SATC	ME		•	Havana
Terpinitz, Jennie Grace		Jnl (SS)	50	•	Champaign
Terrell, William James	SATC	LawP		•	Chicago
Terwilliger, Ruth Mae		LAS	31	†	Decatur
Tesinsky, George Joseph	SATC	Com		•	Cicero
Tessler, Adelaide Rose		LAS		•	Chicago Heights
Thackham, Edwin William	SATC	EE		•	Moline
Thakkur, Khiniji Bhanji		EE(SS)	14	•	Bombay, India
Thal, Adolph Friederich	SATC	ChE	108	•	Champaign
Tharp, Charles Doren	SATC	LawP		•	Carman
Theilen, Sophie		LAS	31	•	Camp Point
Thiele, Ernest William	SATC	ChE	122	•	Chicago
Thoenig, Edwin Jacob		Agr		•	Blue Island
Thoman, William Hall	SATC	CE		•	Peoria
Thomas, Adele Luetta		LAS		•	Ridgerville
Thomas, Alfred Clarence		LAS	84	•	Lovilia, Ia.
Thomas, Charles Edward	SATC	ChE		•	St. Louis, Mo.
Thomas, Charles Frederick	SATC	MidP		•	Alvin
Thomas, Corwin Otis	SATC	EE		•	Vermont
Thomas, Edgbert Anderson	SATC	ME		•	DuQuoin
Thomas, Edward Harry, Jr.		MidP (SS)	65	•	Argenta
Thomas, John Scott	SATC	Agr		•	Hillview
Thomas, John Theron	SATC	Law		•	Belleview
Thomas, Marguerite Emsley		LAS		•	La Grange
Thomas, Nelson Reno		Com	103½	•	St. Louis, Mo.
Thomas, Roswell Wilder	SATC	ME		•	Oklahoma City, Okla.
Thomas, Royle Price	SATC	Agr	97	•	Sullivan, Ind.
Thomas, Worthington Henry	SATC	Agr		•	Mt. Morris
Thompson, Albert Wilder	SATC	LAS		•	Harvey
Thompson, Davis Wesley		Agr	26	•	Sidney, O.
Thompson, Flemin Lester	SATC	LAS		•	Bridgeport
Thompson, Hadley Dewey	SATC	Agr		•	Woodstock
Thompson, Helcn Bowman		SS Lib sp		•	Sullivan
Thompson, Helen Marian		LAS	55	•	White Heath
Thompson, John Philip	SATC	CE	1½	•	Aurora
Thompson, Julia Margaret		LAS		•	Champaign
Thompson, Lee Carl	SNTC	Agr	42	•	Monmouth
Thompson, Melvin De Witt	SATC	LAS	30	•	Kent
Thompson, Myra Elizabeth		LAS	33	•	Chicago
Thompson, Nina		LAS		•	Comer, Ga.
Thompson, Nona Montell		Com		•	Villa Grove
Thompson, Rex Roland		LAS	81½	•	Berwyn
Thompson, Richard Albert	SATC	Com	26	•	St. Louis, Mo.
Thompson, Robert Gail	SNTC	Com		•	Berwyn
Thompson, Vernon Rhonells	SATC	RCE		•	Dwight
Thompson, Vinton Floyd	SATC	Com		•	Chicago
Thompson, William G		SS	8	•	Casey
Thompson, William Lewis		Agr	110	•	Indianapolis, Ind.
Thomson, James Alexander	SATC	ME		•	Chicago
Thorby, Charles Herman Jacobson	SATC	CE sp	18	•	Chicago
Thornhill, George Summers	SATC	ChE		•	Chicago
Thornsburch, Thelma Theo		LAS	31	•	Urbana
Thornsburch, Zada Goff		SS		•	Urbana
Thorpe, Alonzo Valedo		LAS	34	•	Manila, P. I.
Thorsell, Arthur Alfred		ME	72	•	Rockford
Thory, Hans Christian		LAS (SS)	85½	•	Chicago
Thrasher, Lloyd Laverne		Com		•	Salem
Throckmorton, Sidney Lilley	SATC	CE		•	Danville
Thunberg, Arthur Nels	SATC	EE		•	Joliet
Tichenor, Perry Hickman	SATC	LAS		•	Evansville, Ind.
Ticknor, Frederick Lewis		Com	28	•	Peoria
Tiffany, Algernon Eugene	SATC	LAS		•	La Grange
Tiffany, Deedie		HELAS	100½	•	Antioch
Tiffany, Mary		Mus		•	Antioch
Tikotzky, Carl Ralph		ChE	75	•	Chicago
Tikotzky, Julius Max		ChE		•	Chicago
Tilds, Paul		EE	8	•	Milford
Tilley, Paul Andrew	SATC	Com		•	Lincoln
Tilman, Luther Allen	SATC	Com		•	Wabash, Ind.
Tilsy, John William	SATC	Agr		•	Lockport
Tilton, Herbert Fleming	SATC	ChE		•	Chicago
Tilton, Mrs. Leila White, A.B., 1914, A.M., 1915		LAS irr		•	Urbana
Tischner, Theodore		Chem		•	Milwaukee, Wis.
Tjaden, Heike Meenke	SATC	LAS		•	Washburn
Tkach, Mike Howard	SNTC	Com	32	•	Streator
Tobin, Benjamin Martin	SATC	Com		•	Sheffield

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Todd, Leah Tina		HELAS	72½	* † †	Lerna
Toland, Jessie May, A.B., 1908		HEAgr irr (SS)		* † †	Urbana
Toll, Arno William		Com	64	†	Chicago Heights
Tomecko, Cyprian G		SS	10		Lepton, Canada
Tomlinson, Durward Maurice	SATC	Agr		*	Rushville
Tomlinson, Edward Marsh	SATC	Com	63	*	Jacksonville
Tomlinson, Lyle Foster	SATC	Com		*	Salem
Tomscheck, Frank Thomas	SATC	Com		*	Loda
Toney, Lawrence Downer	SATC	LAS		*	Virden
Tong, Towe		Com (SS)	109½	* † †	Washington, D. C.
Torgersen, Mamie Anette		LAS	99½	* † †	Chicago
Torrence, Franklin Albert		LAS	83	* † †	Chester
Tour, Harry Bird	SATC	AE	36	* † †	Humboldt, Ia.
Tourtlot, Frederick Ignatius	SATC	EE	66	*	Oak Park
Towle, Margaret Derthick		HELAS	86	* † †	Champaign
Trager, Gladys Valeria		HELAS		* † †	Loda
Trank, Ralph Allen	SATC	CE		* † †	Rockford
Traut, Francis Harry		CE		* †	Beardstown
Trautmann, Henry William	SATC	CE		*	Peoria
Trautwein, Mary Margaret Alene		HELAS		* † †	Morrison
Traxler, Dorothy Maye		Com	24		Urbana
Traxler, Elinor Evangeline, A.B., 1918		Com irr	130	†	Urbana
Treanor, John Dewey	SATC	Agr		* † †	Moline
Treat, Edna Almeda, B.M., 1910		Mus irr	9	* † †	Oberlin, O.
Treat, Marian Louise		SS	40½	*	Champaign
Tredup, Arthur Louis	SATC	ChE		*	Elgin
Tredwell, John, Jr.	SATC	Com	33½	* † †	Chicago
Trenkle, Howard Raymond	SATC	Com	36	*	Farmers City
Trenkle, Willard Anthony	SATC	Com		*	Farmers City
Trevett, Richard Mansfield		Com		† †	Champaign
Trigg, Grace Marian		LAS	30	* † †	Atlanta
Trimmer, George Donald	SNTC	Com		* †	Bradford
Tripp, Donald Ardean		Com		* † †	Springfield
Troster, Mrs. Emily Kirk		SS	8		Urbana
Troup, Robert Cameron	SNTC	CE	2	* † †	Buffalo, N. Y.
Trout, Willard Kellogg		CE		* † †	Urbana
Trowbridge, Emma Cornelia		LAS	62	* † †	Green Valley
Trowbridge, Helen		LAS	32	* † †	Green Valley
Trowbridge, Merrill Emerson	SATC	Agr		*	Hillsdale
Trowbridge, William Donald	SATC	LAS	11½	†	Green Valley
Trowbridge, William Oliver		SS	73		South Bend, Ind.
True, Leighton Jay		Com sp	8	†	Porterville, Cal.
Tsang, Chuk Yee		Chem	37	* † †	Hong Kong, China
Tsang, Wai Kwong		ME	67½	* † †	Hong Kong, China
Tsao, Mao-te		LAS	88	†	Washington, D. C.
Tschentke, Herman Louis		Chem	72	†	Crescent City
Tsu, Tsch Ling, A.B., 1914 A.M., 1918		SS			Kin Zang Hsien, China
Tuan, Wei		ME (SS)	26	* † †	Mengzha, China
Tucker, Gladys Elizabeth		HELAS	63	* † †	Hume
Tucker, Hazel May		LAS		* † †	Champaign
Tucker, Marion		LAS	47	* † †	Champaign
Tucker, Milton Fred	SATC	ChE	72	* † †	Chicago
Tukey, Mrs. Margaret Davenport		HEAgr	56	* † †	Champaign
Tull, Theima Virginia		LAS		* † †	Farmers City
Tully, Thomas Henry		LAS	32	* †	Elmwood
Tung, Shu Doh		ME	10	* † †	Honan, China
Tureman, Robert Walpole		LAS		* † †	Kansas City, Mo.
Turner, Fred Harold	SATC	MidP		* † †	Tuscola
Turner, Jewett Mattox		Agr	32	†	Chicago
Turner, John Linus	SATC	Com		*	Havana
Turner, John Paul		Arch	30	* † †	Tuscola
Turner, Leonard Christian	SATC	Com		* † †	Whiting, Ind.
Turner, Lester Dewey	SATC	LAS		*	Rock Island
Turner, Nellie Margaret		LAS (SS)	33	* † †	Urbana
Turner, Wayne Isaac		Agr	105	†	Urbana
Turnquist, Elmer Nels		SS	135		Canlon
Turnquist, Ruby Marie		HEAgr	67	* † †	Chicago
Tutwiler, Robert Evans		Com	49	* † †	River Forest
Twells, Robert		CerE	78	†	Chattanooga, Tenn.
Twigg, Bernard Eugene	SATC	CE		*	Paris
Twigg, Josephine Sybil		LAS	31	* † †	Brocton
Twitchell, Angie Ruth		LAS	110	* † †	Belleville
Twitchell, Standlee Irving		LAS	18	* † †	Belleville
Tye, Helen Genevieve		LAS	63	*	Kewanee
Tygett, Glenn Joseph	SATC	MidP	36	* † †	Jonesboro
Tyler, Floyd Ford		LAS	70	* † †	Greenwood, Ark.
Udelowish, Jeanette		Com		†	Chicago
Udinski, William Philip		SS	125		Jersey City, N. J.
Ueberrhein, George Francis	SATC	Agr	31	* † †	Peoria
Uehren, Estella Anna		HELAS	92	* † †	Galena
Uhri, Henry Andrew		Com		*	St. Louis, Mo.
Ulbricht, Jean Percy	SATC	Com		* † †	Benton Harbor, Mich.
Ulrich, Helen Caroline		Mus sp		* † †	La Crosse, Wis.
Umfleet, M. A. Elizabeth		Mus sp	4	†	Grayville
Uderriner, Alfred Bernard	SNTC	EE		*	Efingham

Unger, Frank	SNTC	CE	•	Aurora
Unison, Gerhard John	SATC	ME	68	Chicago
Uthoff, Pearl Katharyn		LAS	102	Princeton
Utley, Ross James	SATC	Com	43½	Chicago
Utley, Theodore Henry	SATC	Agr	32	Sterling
Utterback, Arthur Carroll	SATC	EE	•	Saltfork, Okla.
Utterback, Herman Wesley	SATC	Com	•	Perry, Mo.
Vaile, Edward Leonard, Jr.		CerE	•	Rochelle
Valbert, Jewel N	SATC	LAS	•	Flora
Valentine, Roger Wendell		LAS	8	Mt. Vernon
Vallier, Justin Du Bois		EE	•	Taylorville
Vallier, Ruth Eleanor		LAS (SS)	62	Taylorville
Van Allen, Francis McKinley	SATC	ME	•	Muskogee, Okla.
Vance, Donald Howe	SATC <sup>1</sup>	EE	•	Oblong
Vanderheyden, Fern Lucille		LAS	•	Stockton
Vanderpool, Arthur Meritt		ME	108	Morris
Vanderpool, Irene Edith		LAS	31	Morris
Vandervort, Onieta Moma		Agr	•	Normal
Van Doren, Esther Margaret		LAS (SS)	39	Champaign
Van Doren, Harry Morris	SNTC	Jnl	23	Litchfield
Van Dyke, Fred Henry	SATC	Agr	•	Ashley
Van Dyke, Peter Alexander	SATC	EE	•	Chicago
Vanfossen, Walter Scott	SATC	LAS	•	Flora
Van Inwegen, Helen		Agr (SS)	68	Chicago
Van Kirk, William Tunis		Jnl	•	Chicago
Van Meter, Verl Fred	SNTC	Com	21	Busknoll
Van Nest, Percival Christ		EE	109½	Chicago
Van Pelt, Willis	SATC	Agr	16	Chicago
Vaughan, Harold Esmond	SATC	ME	•	Joliet
Vaughan, Rupert Harold	SATC	Agr	•	Sullivan
Vaughan, Troy Archie	SATC	LawP	•	Carman
Vaughn, Howard Flagler		AE	71	Vesper, Wis.
Vaughn, John Irving	SNTC	Chem	24	Vesper, Wis.
Vaughn, Louis Edward		ME	•	Alton
Vawter, Monroe Fowler	SATC	Com	•	Hillsboro
Veirs, Dean Moorman		SS	65	Urbana
Verea, Juan		Agr	•	Guadalupe, Mex.
Vial, Edmund Ellsworth	SATC	Agr	5	La Grange
Vial, Gordon Lewis	SATC	Agr	•	La Grange
Vial, Helen Gertrude		HELAS	115½	La Grange
Viall, Orlo Joseph	SATC	CE	•	Chicago
Vianna, Milton Ferrera		SS	5	Rio de Janeiro, Brazil
Victor, Sturges La Verne	SATC	ME	•	Onarga
Villars, Odessa Margaret		LAS	•	Danville
Vilmur, Alvin Norbert	SATC	AE	•	Assumption
Vilmur, Elmer Cris	SATC	AE	•	Assumption
Vincent, Gerald Everette	SATC	LawP	•	Chrisman
Visino, May Amelia		LAS	27	Murphysboro
Voelpel, William Frederick	SATC	ME	•	Morton
Vogel, Otto Henry	SATC	CE	•	Davenport, Ia.
Voge, Leon Otis	SATC	Com	34	Urbana
Vogt, Frank Walter		CE	74	Chicago
Vohs, Linz Vincent	SATC	Agr	28	La Salle
Voigt, Olen Edward	SATC	CE	•	Wheaton
Vokral, Joseph Frank	SATC	ME	•	Chicago
Volkman, Fred Edward	SATC	EE	•	Chicago
Volkmar, Russell James	SATC	ME	•	Beardstown
Volland, William McKinley		ME	•	St. Louis, Mo.
Vollbracht, Florence Anna		LAS	33	Camp Point
Volner, Dewey	SATC	LAS	•	Cartersville
Vonasek, Otto William	SATC	ME	•	Chicago
Von Ohlen, Floyd William George		Agr	86	Hinckley
Voorhees, Evangeline Mae		Com	61	Chicago
Voorhees, Vanderveer		ChE	109	Alton
Vorsheim, George Henry	SATC	ChE	•	Oak Park
Voss, Esther Katherine		LAS	•	Wilmette
Vranek, Miles Emanuel	SATC	EE	•	Maywood
Vreeland, Henry Kipp		Agr	•	Joliet
Wade, Sidney	SNTC	LAS (SS)	26	Buffalo, N. Y.
Wagenknight, Algernon Roberts, Jr.		Agr	18	La Grange
Wager, Maurice Pollard		ME	72	Milwaukee, Wis.
Waggoner, Bert Philip	SATC	Chem	•	Gays
Waggoner, Marion Eugenia		SS	7½	Lebanon
Wagner, Clarence Alfred	SNTC	Agr	•	La Salle
Wagner, Edward Michael	SATC	Com	•	La Salle
Wagner, Esther Angelica, A.B., 1918		SS	132½	Forest Park
Wagner, Everett Emmerson		Com	9	Metamora
Wagner, Wesley Gephart		Agr (SS)	105½	Urbana
Wahl, Clyde Raymond	SATC	Com	•	Sterling
Wahl, George John, Jr.		EE	47½	Chicago
Wahlberg, Kosti Wilhelm		ChE	•	Ylaine, T. L., Finland
Wakey, Ross William	SATC	ME	•	Grand Ridge

<sup>1</sup>"Enrolled" in the S.A.T.C., but not inducted.

Walberg, Leonard Carl	SATC	ME	93	† † †	Harvey
Waldo, John Hardenbergh	SATC	Chem		† † †	Urbana
Walgren, Lloyd Willard	SATC	CE		† † †	Rockford
Walker, George Harper	SATC	Com		† † †	Bethany
Walker, Glenn Bruce	SATC	MdP		† † †	Aurora
Walker, Harold William	SATC	Com		† † †	La Grange
Walker, Joseph Christy	SATC <sup>1</sup>	Com		† † †	Moline
Walker, Laura	HELAS		29	† † †	Clinton
Walker, Lee Earl	SATC	LAS		† † †	Anna
Walker, Malcolm Sidney	CE			† † †	Chicago
Walker, Margaret	LAS (SS)		100	† † †	Kansas City, Mo.
Walker, Paul	SATC	Agr	27	† † †	Palestine
Walker, Pearl White	LAS (SS)		54	† † †	Golconda
Walker, Sarah Francis	HELAS		29	† † †	Clinton
Walker, Volney Denchar	SATC	ME	68	† † †	Lakewood, O.
Walker, Ward Smith	SATC	Agr		† † †	Gays
Walkup, Elmer Bert	CE			† † †	Urbana
Walkup, Ione Dorothea	LAS		33	† † †	Champaign
Wall, Charles William	SATC	Com	32	† † †	Marion, Ind.
Wall, Wilma La Verne	HELAS			† † †	Danville
Wallace, Claradell	HELAS			† † †	Urbana
Wallace, Elwin Thomas	SATC	Agr	65	† † †	Assumption
Wallace, Frank Maltby	SATC	Com	26½	† † †	Champaign
Wallace, Leon Huston	SATC	Agr		† † †	Gays
Wallace, Ruth	Com		50	† † †	Homer
Wallach, Lillian	LAS			† † †	Chicago
Walls, Catherine Jean	LAS			† † †	Chicago
Walquist, Lawrence Wilfred	SATC	CE		† † †	Rockford
Walsh, Edward John	SATC	Jnl	42½	† † †	Herscher
Walsh, James Kennedy	SS		48	† † †	Urbana
Walsh, Nelson John	MdP			† †	Morris
Walsh, Thomas Patrick	SATC	MdP		† †	Chicago
Walter, Fred	SATC	Agr	97	† † †	Perry, Mo.
Walter, Mary Harte	LAS			† † †	Perry, Mo.
Walters, Maurice Carroll	Agr			†	Springfield
Walters, Winifred Olive	LAS			†	Little York
Walton, Curtis Franklin	SATC	LAS		†	Tulsa, Okla.
Wamsley, John Henry	SATC	Com	65½	† †	Tuscola
Wand, Fred Andrew	SNTC	Agr		† †	Onarga
Wand, William Wilson	LawP			† †	Onarga
Wanderer, Elizabeth Catherine	Chem		97	† †	Oak Park
Warbritton, Harriet Marie	SS		11	† †	Ladoga, Ind.
Ward, Charlotte Baldwin	LAS		68	† †	Urbana
Ward, Garland Francis	SNTC	ME	17	† †	Virginia
Ward, Hiley Lemen	SATC	LAS	35	† †	Du Quoin
Ward, John Marcus	SATC	Com	4	† †	Rockford
Ward, Justus Conrad	SATC	Chem	70	† †	Clinton
Ward, Lewis Ott	CE			† †	Indianapolis, Ind.
Warfel, Lella May	Chem			† †	New Philadelphia
Warfuel, Morgan Ernest	SATC	EE		† †	Chicago
Warford, David Arthur	Law		30	† †	Elizabethtown
Wargin, Lewis Joseph	SATC	ME		† †	La Salle
Warmolts, Cornelia Sara	HELAS		105	† †	Oregon
Warmolts, Earl Hugh	MdP		38	† †	Oregon
Warner, Eleanor Frances, M.A., 1913	Lib		32	† †	Berea, O.
Warnes, Helen Birdella	LAS		62	† †	Chicago
Warnes, Irene	LAS			† †	Newman
Warren, Donald McGill	SATC	Com		† †	Watsela
Warren, Dorothy	HELAS		99	† †	Watsela
Warren, Harry Theodore	Chem		52	† †	Centralia
Warren, Milton Willard	Agr		62	† †	Mansfield
Warren, Nellie Pearl	LAS		75	† †	Mcnsfield
Warren, Paul Gunthorp	SATC	Com	15½	† †	Riverside
Warren, Winifred Field	Com			† †	Paw Paw
Wascher, Herman	Agr			† †	Champaign
Washburn, Ava Lee	HEAgr sp (SS)		4	† †	Caneyville, Ky.
Washburn, William Orville	Com		30	† †	Rock Island
Washington, Camille	LAS			† †	Lovejoy
Waterbury, Harry Bremner	Agr		59	† †	Chicago
Waterman, William Layton	Agr		49	† †	Chicago
Waters, George Gerald	EE		69	† †	St. Louis, Mo.
Watkins, Bertha Maie	LAS		29	†	Kankakee
Watkins, Bessie Birdell	HELAS		5	†	Cairo
Watkins, Lucian Bottow	LAS sp			†	Champaign
Watkins, Paul Ralston	SATC	Com		†	Bloomington
Watne, Theodore Alfred	SATC	Agr		†	Shobonna Grove
Watson, Bertha Anna	HEAgr			†	Ludlow
Watson, Constance	LAS		96	† †	Urbana
Watson, George Ferris	SATC	LAS	16½	† †	Danville
Watson, Grace Gamron	LAS		32	† †	Arthur
Watson, Malcolm Hamilton	SATC	Agr	67	† †	Urbana
Watson, Paul Adam	SATC	CE		† †	Chicago
Watson, Ralph Waldo	Law sp			†	Arthur

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Watson, Raymond Vance	SATC	Agr	67	•	†	Clinton
Watt, Margaret Louise		LAS (SS)	70	•	†	Winchester
Watt, Russell A. B.S., 1918		AE irr	142	†		Champaign
Wattleworth, Charles	SATC	CE	32	•		Chicago Heights
Watts, Amos Holston		Law		†	†	Nashville
Watts, Donald Gordon		LAS	37	†	†	Corlinsville
Watts, Grace Minnie		LAS	56	•	†	Saxmemin
Watts, Leonora Howard		LAS (SS)	83	•	†	Lebanon
Watts, William Wadsworth	SATC	LawP	34	†	†	Nashville
Wear, Ernest George	SATC	EE	30	†	†	Macomb
Wearly, Harriet Ellen		HELAS		†	†	Huntington, Ind.
Weaver, Dorothy Eunice		LAS		•	†	Champaign
Weaver, Gayle Estelle		LAS		•	†	Longview
Weaver, Vesta Belle		HELAS	32	•		Henry
Webb, Clay Dale	SATC	ME		•		Champaign
Webb, George Stanley		REE	74	†	†	Bloomington
Webb, Judson Willard	SATC	Chem		†	†	Maywood
Webb, Mary Louise		LAS	27	•	†	Chicago
Webb, Rex Elias	SATC	Com		•	†	Ewing
Webb, Willis Crawford	SATC	Agr	32	•	†	Chicago
Webber, Clyde Augustin	SATC	ChE		•	†	Urbana
Webber, Flavius Sanford		Agr		•	†	Paxton
Webber, Louis Waller	SATC	CE		•		Rantoul
Webber, Robert Alfred		ChE	115	†	†	Urbana
Webber, Ruth Marjorie		LAS		•	†	Urbana
Weber, Edward Fred	SATC	CE		•	†	Chicago
Weber, Ora Keith	SATC	Agr		•	†	Nokomis
Weber, Robert Emanuel, Jr.	SATC	EE		•	†	Highland Park
Webster, Edwin Herbert	SATC	ChE	73½	†	†	Chicago
Webster, Eloise		LAS		•	†	Detroit, Mich.
Weeks, Hale Jay	SATC	Com		•		Rochelle
Wedge, Wilbur Dewey		LAS	74	†	†	Kewanee
Weger, Cecil Maxwell	SATC	Agr		•	†	Flint Rock
Weiler, Mrs. Nan		SS	1			Carbondale
Weinberg, Adolph Benton	SATC	Agr		•	†	Augusta
Weinberg, Jonathan Dearborn	SATC	ME		•	†	Augusta
Weiner, Aaron Burton	SATC	ME	71	†	†	Chicago
Weingaertner, Paul Herbert	SATC	CE	32	•	†	Belleville
Weingarten, Lawrence Bernard	SATC	Com		•	†	Champaign
Weinreich, George Franklin	SATC	ME		•	†	Chicago
Weir, Amy Azalea		SS	130			Marshall
Weir, Mary Jane		HEAgr	66	†	†	Marshall
Weise, Nicholas George		Agr	94½	†	†	Chicago
Weisenborn, Ralph Chris	SATC	Agr		•		Quincy
Weisheit, Charles		Com		†	†	Jersey City, N. J.
Weiss, Harry Harold	SATC	CE		•		Chicago
Weiss, Marten Earl	SATC	Agr		•		Geneseo
Weissman, Maurice	SATC	LawP		•	†	Chicago
Welch, Charlotte Bruce		LAS	64	•	†	Waukegan
Welch, Stanley Edwin	SATC	Com	32	•	†	Chicago
Weldon, Clarence William	SATC	Agr		•		Rockford
Wellman, Theodore Odessie	SATC	Com		•		Champaign
Wells, Aimee		Mus sp		•	†	Urbana
Wells, Delbert Leslie	SATC	CE		•		Monmouth
Wells, Estell Marion		LAS	77	†	†	Girard
Wells, Paul Lawrence	SATC	LAS		•		Grayville
Wells, Ralph Merle	SATC	Com		•		Ladonia, Mo.
Welsh, John Robert		CE		•	†	Champaign
Welter, Robert Edward	SATC	ChE		•	†	La Salle
Wemple, Merrett Clark	SATC	CE		•		Rockford
Wenisch, Walter Frank	SATC	AE		•		Chicago
Wenke, Vernon Arthur		Com	100	†	†	Geneseo
Werner, Elsie Ann		SS	99			Saybrook
Werner, Harry William	SATC	ME	41	•	†	Chicago
Werre, Lingard Eugene		Com		•	†	Kahoka, Mo.
Werstler, William Joseph		Agr	105	†	†	Chicago
Wesch, Leda Pauline		SS	43			Arcola
Wessels, Marie		LAS	96	•	†	Quincy
Wessman, Harold Everett Walfred	SATC	CE		•	†	Rockford
Wessman, Walter Joel	SATC	Com		•	†	Rockford
Wesson, Katherine		LAS	18	†	†	La Crosse, Wis.
West, Benjamin Adolph	SATC	ME		•		Watsoka
West, Clyde Glen	SATC	CE		•		Leviestown
West, Ernest Paul	SATC	ME		•		Augusta
Westcott, Ellsworth Johnson	SATC	CE	35	•	†	Maywood
Westcott, Philip Spring		REE (SS)	64	†	†	Oak Park
Westerfeld, Sidney Arthur	SATC	Com	32	•	†	Chicago
Westerfeld, Paul	SATC	CE		•	†	Frankfort Heights
Westerman, Lena Mary		SS	13			Mound City
Westermann, Richard Wilbert	SATC	ChE	68	•	†	Quincy
Westfall, James Harvey		LAS		†	†	Graville
Westfield, Norman Elmer		Agr	50	†	†	Chicago
Westphaelinger, Pauline Gertrude		SS	8			Ridgway
Elizabeth						
Wettergren, Wesley Kern	SATC	LawP	34	•		Rockford

Wettstein, Robert Payne	SATC	Com	15	*	Chicago
Wetzel, Harry	SATC	Agr		*	San Jose
Wetzel, Helen Talitha		SS	5		Bay City, Mich.
Weygant, Robert Miller	SATC	CE		* † †	Waukegan
Whalin, Edwin Ansil		Agr	92	* † †	Rose Hill
Wharmby, Ada		LAS	33		Urbana
Wharton, Russell Finley	SATC <sup>1</sup>	EE		* †	Moline
Wharton, Wayne Thompson	SATC	Com	101	* † †	Moline
Wheatley, Bernice Kathryn		HELAS	28		Champaign
Wheeler, Carl Edgar	SATC	EE		*	Lincoln
Wheeler, Helen Marguerite		HELAS (SS)	31	* † †	Champaign
Wheeler, John Russell, Jr.	SATC	LAS		* † †	Tulsa, Okla.
Wheeler, Mrs. Lucile Voris		Mus		†	Urbana
Wheeler, Mildred		SS	1		Bethany
Wheeler, Raymond Guy	SATC	Com		*	Carmi
Wheelhouse, Hermann Allen	SNTC	ME	2	* † †	Decatur
Wheldon, George Dewey	SATC	Com		*	Chicago
Whicker, Samuel Guy	SATC	EE		*	Lerna
Whipple, Leonard Austin	SATC	CE		* † †	Chicago
Whitaker, Claude Brown		Com		* † †	Peoria
Whitaker, Louise		Com		* † †	Urbana
Whitaker, Teal Boles	SATC	AE		*	Sullivan
Whitchurch, Louise Augusta		HELAS	32	* † †	Salem
Whitcomb, Carl	SATC	ME		*	Chicago
Whitcombe, Albert Bertrand	SATC	AE		*	Dixon
White, Earl Leonard	SATC	Com	59	* † †	Belvidere
White, Harold Elmer	SNTC	ME		* † †	Vestaburg, Mich.
White, Herbert Bigham		Agr	12	* † †	Peoria
White, Jeanne Winslow		Com		* † †	St. Joseph, Mo.
White, John Kay	SATC	Agr		* † †	Marissa
White, Leonard Newton		CE	41	* † †	Little Rock, Ark.
White, Merle Marie		SS	72½		Urbana
White, Walter Howard	SATC	EE		* † †	Joliet
White, William Charles	SATC	EE		*	Chicago
White, William Wallace		Com	36	* † †	Chicago
Whitehead, Lora Samuell		SS	4		Easton
Whitehouse, Lucile Ruth		HELAS		* † †	Cherokee, Ia.
Whiteside, Russell Edward	SATC	Agr		*	Kansas
Whitman, Beulah Mae		HELAS	104½	* † †	Cameron
Whitmarsh, Thomas Cecil		Com		* † †	St. Louis, Mo.
Whitney, Harold Eugene	SNTC	Com		* † †	Terre Haute, Ind.
Whitney, Howard Hume	SATC	Agr		*	Roadhouse
Whittaker, Mabel Mae		SS	8		New Harmony, Ind.
Whitten, George Arion		Arch	69½	* † †	Urbana
Whitten, Philip Roseman		Mus sp	2		Urbana
Whittier, Heman James		Com		* † †	Kansas City, Mo.
Whittier, Marshall Waldo	SATC	ME	27½	* † †	Kansas City, Mo.
Whittington, Ralph Samuel	SATC	EE		* † †	Benton
Whittum, Florence Lucille		HELAS	101	* † †	Herscher
Wickhorst, William Krieg		CE		* † †	Aurora
Wiedemann, Madge		LAS		*	Harvey
Wiedemann, Newell Everett		Arch	105½	* †	Reclor, Ark.
Wieneke, George Raymond	SATC	LAS		*	Geneseo
Wiener, Allen Jacob	SATC	MdP		*	Dixon
Wiersema, Dorothy Mae		LAS	55	* † †	Berwyn
Wilber, Harold Courtney		Com	107	* † †	Potomac
Wilbrett, Ralph Oliver	SATC	Agr		*	Malta
Wilcox, Harold Childs		Com		* † †	Sterling
Wilcox, Sadie Elizabeth		SS Lib sp		*	Mendota
Wilcox, Samuel Ledyard	SATC	Chem		*	Chicago
Wilde, John Frank		CE		* † †	Oak Park
Wilde, Norman De Witt	SATC	Com		*	Chicago
Wildeman, Harry Henry	SATC	Com		* † †	Chicago
Wilder, Charles Lucas		Com	66	* † †	Peoria
Wildermuth, Joe Henry	SATC	Arch	87	* † †	Gary, Ind.
Wiley, Elvin James	SATC	MdP		* † †	Hanover
Wiley, Neva Beryl, A.B., 1909, A.M., 1915		SS		*	Champaign
Wilhoit, Arthur	SATC	Agr	93	*	Kansas
Wilhoit, Nina Marguerite		LAS	62	*	Westfield
Wilkey, Lucille Vivien		LAS	87	* †	Urbana
Wilkinson, Bert Keith	SATC	LAS		*	Elburn
Wilkinson, Porter Augustus	SATC	Com	22	* † †	Bethany
Wilkinson, Scott Jackson	SATC	MdP	68	* † †	Bethany
Will, Howard Austin	SATC	LcwP	34	* † †	Champaign
Willard, Ruth Frances		LAS	31	* † †	Decatur
Willcox, Harry J. M.A., 1915		Mus sp		* † †	Ithaca, N. Y.
Willerten, Edward Parke		Agr	8	* † †	Danvers
Willott, Donald Biggar	SATC	LAS	62½	* † †	Oak Park
Williams, Anna Beatrice		LAS		* † †	Springfield
Williams, Beulah Naomi		LAS	99	* † †	Hume
Williams, Clarence Ray		Agr	79	* † †	Bethany

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Williams, Henry Walter	SNTC	EE		* † †	Lincoln
Williams, John Bradley		Com	109	† †	Peoria
Williams, Norman Baldwin		LAS	56	† †	Streator
Williams, Paul Albert	SATC	Com	67	* † †	Freeport
Williams, Paul Ransome	SNTC	Jnl	30	* † †	Aurora
Williams, Raymond Clendenin	SATC	LAS	64	* † †	Aca
Williams, Ruby		LAS sp	4	* † †	Shelbyville
Williams, Wanda Eleanor		HELAS	20	* † †	Springfield
Williamson, Harlan Aretus		Com	99	* † †	Jacksonville
Williamson, Kenney Ernest	SATC	Com	34	* † †	Griggsville
Williamson, Maude, A.B., 1909		HELAS irr		*	Palacios, Tex.
Willis, Merle William	SATC	Com		*	Hoopeston
Willis, William Arthur	SATC	ChE		* † †	Rock Island
Willrich, Hilda Helen		Agr sp		* † †	Washington, D. C.
Wills, Ross Everett	SATC	Com	33	* † †	Griggsville
Willson, Florence Margaret		HELAS	32	* † †	Bonaparte, Ia.
Willson, Nell D		LAS		* † †	Clinton
Willson, Ruth		LAS	26	* † †	Clinton
Willy, John Knight	SATC	CE		* † †	Chicago
Wilner, Edmond Charles	SATC	Com	15	* † †	Chicago
Wilson, Abram Smith	SNTC	ChE	23	* †	Blairstown, N. J.
Wilson, Mrs. Alta Mosser		SS	1	*	Champaign
Wilson, Carlos Douthit	SNTC	MinE		* † †	Shelbyville
Wilson, Cecile		Mus	17	* † †	Christopher
Wilson, Chase Curtiss	SATC	ME		*	La Grange
Wilson, Clarence Edward	SNTC	Com		*	Chicago
Wilson, Clarence Roy	SATC	EE		*	Chicago
Wilson, Finis Arthur		SS	9		Eldorado
Wilson, Gail Jennings	SATC	Com	60½	* † †	Carbondale
Wilson, Harold Frederick		CE		* † †	Mason City, Ia.
Wilson, Jane Elma		LAS	70½	* †	Morris
Wilson, John Hawley	SATC	Com	31	* † †	Peoria
Wilson, Joseph Charles, Jr.		EE	37	* † †	La Grange
Wilson, Kenneth Leon		Agr	72	* †	Atwood
Wilson, Kenneth Thompson		CE		*	St. Louis, Mo.
Wilson, Lois Josephine		Com	36	* † †	Morris
Wilson, Lula		HELAS (SS)	24	* † †	Paris
Wilson, Oscar August	SATC	CE		*	Geneva
Wilson, Perry Robert	SATC	ChE		* † †	Manhattan
Wilson, Robert Stewart	SATC	LAS	90	* † †	Fargo, N. D.
Wilson, Stephen Askew		LAS	64½	* †	Chicago
Wilson, Wesley David	SNTC	CE (SS)	28	* †	Taylorville
Wilson, William Naal	SNTC	LAS		*	Longview
Wilson, William Paterson		LAS	106	* † †	Coal City
Wilton, Oliver Nenis	SNTC	ME	36	* † †	Lake Villa
Winchester, Bessie Frances		HELAS	64	* † †	Urbana
Winchester, Henry Ray	SATC	Com		*	Havana
Wine, Frances Esther		LAS	35	* † †	Chicago
Wine, Lois Marie		Jnl	34	* † †	Mt. Morris
Wingert, Betty		LAS	25	* † †	Dixon
Wingert, Edward Boardman	SATC	LAS		* †	Dixon
Winkelmann, Mrs. Gail Gaunt, A.B., 1918		Mus	131	†	Urbana
Winkelmann, Roland Earl		Law	43	†	Belleville
Winkler, Ross Wayne		Agr	92½	†	Newman
Winn, Ferne Abbie		HEAgr (SS)	43	* †	Richland Center, Wis.
Winn, George Pickrell		EE	121	* †	Kansas City, Mo.
Winsborough, Calvert Swing		Agr	56½	* † †	St. Louis, Mo.
Winship, Elspeth Lorraine		LAS	25	* † †	Tiskilwa
Winteringham, Sidney Potter	SATC	CE		* † †	Aurora
Wintermute, Imogene, B.A., 1911		Lib (SS)	44	* † †	Delaware, O.
Winters, Harriet Elizabeth		Com (SS)	19	* †	Champaign
Winterscheid, Kenneth Ervin	SATC	Agr		*	Hennepin
Wirick, Lawrence Frederick		HEAgr		†	Chicago
Wirt, Jenness Mary		CE		* † †	Rockville, Ind.
Wirtenberger, Henry James	SNTC	LAS		* † †	Chicago
Wirthlin, Melida Lee		HELAS	68	* † †	Madison
Wise, Eleanor Lucille		HELAS		* † †	Cerro Gordo
Wiseheart, Claude Bryon	SATC	Agr		*	Shawneetown
Wiseheart, John William	SATC	CE		* †	Shawneetown
Wishneff, Ralph	SATC	ME		*	Chicago
Withrow, Frances Louise		LAS	94	* † †	Springfield
Witt, Andrew Frederick	SATC	EE		*	Fulton
Witte, Paul Frederick	SATC	ME		*	Louisville, Ky.
Witters, Josef Edward		LAS	94	†	Grand Rapids, Mich.
Wittmann, Robert Alfred	SNTC	ME		*	Chicago
Wittner, Loren Henry		Agr sp		†	Rockport
Witwer, Frederick Minor	SATC	Com		* †	Effingham
Woare, Edward Martin	SATC	ME		*	Harvey
Woelfersheim, Louis George	SATC	ME		*	Chicago
Wold, Leaman Archer	SATC	ChE	71	* †	Rockford
Woleben, Marion Lois		LAS	60	* † †	Chicago Heights
Wolens, Joseph	SATC	EE	29	*	Chicago
Wolfe, Herbert James		Com		*	Elgin
Wolff, David Alexander	SATC	LawP	29	* † †	Champaign

Wolff, Ellis Jerome	Com	20	•	†	Urbana
Wolff, Saul Samuel	EE	5	•	†	Chicago
Wolk, Wade Franklin	SATC ME		•	†	El Paso
Wolter, Julius William	SATC Law P	32	•	†	Lemont
Woltmann, Carl Edward	Com		•	†	Nokomis
Wong, Kah-Kon	LAS		•	†	Canton, China
Wong, Keng Woon	LAS	32	•	†	Canton, China
Woo, Thomas Tsz Chung	LAS	75	•	†	Hupei, China
Wood, Annetta Lois	LAS		•	†	Decatur
Wood, Charles Clifford	CE	110	•	†	Flint, Mich.
Wood, Frank	SATC CE		•	†	Tulsa, Okla.
Wood, Helen Louise	LAS	100	•	†	Pekin
Wood, John Bugbee	SATC Agr		•	†	Galesburg
Wood, Ruth	Mus		•	†	Rensselaer, Ind.
Wood, William	SATC ME		•	†	Ottawa
Wood, William Douglas	SATC Com		•	†	St. Louis, Mo.
Woodruff, Clarke Waldo	SATC LAS		•	†	Springfield
Woodruff, Marion Francis	SATC LAS		•	†	Springfield
Woods, Florence Mary	LAS	33	•	†	Champaign
Woods, Grace Blackledge	LAS	99½	•	†	Sterling
Woods, Lenna Adair Beryl, A.B., 1918	SS	139½	•	†	Champaign
Woodward, Agnes Ethel	HELAS	21	•	†	Odin
Woodward, Nettie J	HEAgr		•	†	Urbana
Woody, Silas Gibb	SATC Com		•	†	Park Ridge
Woody, William Leslie	SATC Com		•	†	Park Ridge
Woolery, Anna Marie	SS	15½	•	†	Urbana
Woolery, Warren Wycliffe	AE		•	†	Urbana
Woolman, Rachel Margaret, B.S., 1916	SS	131	•	†	Urbana
Wolverton, George Dewey	SATC CE		•	†	Hulsvontville
Worden, Laura Belle	HELAS	56	•	†	Harvard
Workman, Cecil Roy	SATC ChE		•	†	Corcoran, Cal.
Wormley, Lorentz Englehart	SNTC MinE	36	•	†	Kinmundy
Worrell, Nathan Burton	Agr		•	†	Bowen
Worthington, John Connor	SATC Com		•	†	Warsaw
Wright, Cecil Kasser	SATC ME	34	•	†	Doylestown, Pa.
Wright, Clarence Salmon	SNTC ME	35	•	†	Elgin
Wright, Edward Edwards	SATC ME		•	†	Oak Park
Wright, Francis Marion	ME	77	•	†	Dundee
Wright, George Dewey	SATC Com		•	†	Urbana
Wright, Howard Leroy	SATC EE	72	•	†	Bradford
Wright, Roy Elmer	SATC Com		•	†	Mt. Carroll
Wright, Samuel Herman	SATC Agr		•	†	Farmer City
Wrobke, Frederick Dewey	SATC Com	66	•	†	Bartonville
Wu, Lih-Ming	ChE		•	†	Maywood
Wuesteman, Adelbert Earnest	SATC ME		•	†	Shanghai, China
Wurst, Henry Ebert	SATC Com		•	†	Champaign
Wyant, Florence Ethelyn	LAS	40	•	†	Quincy
Wyne, Clarinda Jean	SS	86½	•	†	Chicago
Wynn, Mary Frances	SS Lib sp		•	†	Vermont
Yackel, Walter Carl	SATC ME		•	†	Chicago
Yackey, Cordelia Olive	HELAS		•	†	Alton
Yackle, Stella	SS	7½	•	†	St. Louis, Mo.
Yagow, Edwin John	SATC ME		•	†	Nokomis
Yaxley, Ethel Gladys	HELAS		•	†	Beardstown
Yeager, Lloyd Hervey	ME	59	•	†	Medina, N. Y.
Yerkes, Charles Wrenn	SS	18½	•	†	Douglas, Ariz.
Yezner, Stanley Ivan	SATC ChE		•	†	Moweaqua
Yockey, John Clarence	SATC MdP		•	†	Eldorado
Yockey, Wallace Loraine	SATC Com	32	•	†	Monticello
Yohe, Forrest Roberts	SATC MdP		•	†	Beardstown
Yoshikawa, Yoshio	EE	71	•	†	Mt. Erie
Yost, Charles Frank	LAS sp	4	•	†	Honolulu, Hawaii
Young, Clyde Cyrenius	SATC Com		•	†	South Bend, Ind.
Young, Edith Helen	LAS		•	†	Monmouth
Young, Edwin Warren	SATC ME		•	†	East Moline
Young, Leotis Eugene	ME		•	†	Oklahoma City, Okla.
Young, Nellie	LAS (SS)	116	•	†	Sauemin
Young, Russel K	SATC Agr	19	•	†	Salem
Young, William Morris	SATC ChE	35	•	†	Bloomington
Youngblood, Alta Miriam	HELAS	95	•	†	Omaha, Neb.
Younger, Don Carlos	SATC Com		•	†	Hoopeston
Youngquist, Philip Oliver	SATC CE		•	†	Freeport
Youngs, Donald Heard	ME		•	†	Batavia
Yu, Chi Chuan	Com		•	†	Freeport
Yu, Jih-Chuan	CE	34	•	†	Washington, D. C.
Yuen, Kwok Sham	RCE	24	•	†	Chicago
Zakin, Max	SATC ChE		•	†	Canton, China
Zander, John Edward	SATC ME		•	†	Peoria
Zartman, Lester Grant	Agr		•	†	Elgin
Zearing, George	SATC Com		•	†	Galveston, Ind.
Zeek, Leo Donnell	SATC EE		•	†	Princeton
Zeigle, Kenneth Carew	SATC Com		•	†	Chicago
Zell, Oscar Stephen	SATC CE		•	†	Warren
Zellhoefer, Edna Lila	LAS	111	•	†	Cayuga, Ind.
			•	†	Le Roy

Zellhoefer, Glenn Faber		Chem		† Le Roy
Zick, Walter Albert	SATC	Com		• St. Joseph, Mich.
Ziebold, Eugene Henry	SNTC	ME		• Bloomington
Ziegler, John Wesley		ChE	65	• † † East St. Louis
Ziemann, Harry John		Arch	35	• † † Milwaukee, Wis.
Ziemer, Gregor Athalwin	SATC	LAS		• † Allamont
Zika, Marie Lydia		HEAgr	32	• † Chicago
Zilly, Marie Louise, A.B., 1909		LAS irr	134	• † Champaign
Zimmerman, Delbert Chester	SATC	Com		• Freeport
Zimmerman, John Harvey	SNTC	ME	34½	• † † Chicago
Zimmermann, Albert Jobst	SATC	Com (SS)	28½	• † † Peoria
Zimmermann, Harry Gustav		LawP	95	• † Peru
Zitzewitz, Edward Frank	SATC	ME		• Chicago
Zoll, Frances		LAS		• † † Arlington Heights
Zoll, John Percy	SATC	Com		• † † Galesburg
Zuckerman, Benjamin Selman		AE (SS)	92	• † † Chicago
Zuckerman, Joseph Samuel	SATC	ME		• † † Chicago

## COLLEGE OF MEDICINE

Name	Year	Residence
Abrahams, Samuel	1	Oblong
Adrachinsky, Isaac	1	St. Louis, Mo.
Alesen, Lewis Albert	2	Detroit, Mich.
Allen, George Albert, B.S.	3	Clinton
Alvarez, Ricardo Lanuza	1	P. I.
Anderson, Bertha Marie	1	Denver, Colo.
Anderson, Howard Clayton	sp	Fargo, N. D.
Aries, Philip	2	Chicago
Armstrong, Clifford Oakley, B.S.	4	Bloomington
Arnquist, A Samuel, B.S.	3	New Richmond, Wis.
Ashley, Rea Ernest, B.S.	3	Denver, Colo.
Bacon, Carl Alfons	2	Chicago
Bacon, Ernest Lecher	1	Chicago
Bairnson, George Andrew	4	Chicago
Baxter, Lewis Thomas	3	Astoria
Beilin, David Solomon, B.S.	4	Chicago
Berman, Simeon Leo	1	Chicago
Blair, Edgar Theron	3	Chandlerville
Block, Coleman Alex	1	Des Moines, Ia.
Bloom, Arthur Ruben	1	Chicago
Blum, David Mitchell	2	Des Moines, Ia.
Bogue, Arthur Reuben	3	Savanna
Boner, Albert Jay	1	Chicago
Brams, Julius	2	Chicago
Bronson, Paul Jones	2	Terre Haute, Ind.
Brosius, Ernest Julius, D.D.S.	3	Chicago
Browne, Howard Storm, B.A., Ph.C., M.S.	4	Norman, Okla.
Browne, William Marcourt	2	Chicago
Buhrman, William Lane	1	Nashville
Burkett, Richard C	2	Orange, Cal.
Burleson, Edward Gyde	1	Detroit, Mich.
Burst, William	1	Chicago
Capek, Ladislav V	3	Chicago
Carley, Paul Sterling	3	Buckley
Carter, William McKinley, B.A.	3	Bowbells, N. D.
Champlin, Howard William, B.S., A.B.	3	Chicago
Charpier, Leonard Louis	1	Chicago
Chenoweth, Frank Leland	2	Mason City
Chung, Philip Wong	1	Pyeng Yang, Korea
Clarke, George Edward	3	Noblesville, Ind.
Cline, Gerald M. B.S.	3	Le Roy
Cohen, Carl, B.S.	3	Atlanta
Coleman, John Spurgeon	2	Halsted, Kan.
Connell, Walter Joseph, B.S.	4	Farley, Ia.
Cooper, Flora B	sp	Chicago
Cottle, Maurice, B.S.	3	Chicago
Craddock, John William, B.S.	3	Chicago
Crawford, Neal Dow	2	Luverne, Minn.
Crawford, Woodruff Lynden, B.S.	3	Chicago
Curtis, William	3	Chicago
Dana, Winfred Peterson, B.S.	4	Tacoma, Wash.
D'Alcorn, Ernest N	2	Chicago
Davison, Charles Marshall, B.S.	3	Chicago
Dennis, Howard Olney	2	Cloris, N. M.
Diller, Harold Francis, B.S.	3	Rantoul
Dona, Pedro J	2	Central America (Nicaragua)
Donaly, Marie Ruby	1	Carterville
Donovan, Edward Vincent	3	Chicago
Dorewitz, Maurice	4	Niagara Falls, N. Y.
Draper, Laurence Francis, B.S.	3	Clinton
Drues, Isadore Abraham	1	Chicago
Dryden, Frank Merle, A.B.	4	Oak Park

Dyer, Robert E. B.S.	4	Chicago
Eby, Ida, B.S.	4	Columbus Grove, O.
Edgington, Lloyd Conway	1	Chicago
Edidiq, Louis	1	Chicago
Ehrlich, Maximilian Charles, B.S.	3	Chicago
Eisler, Edwin Roy, B.S.	4	Minneapolis, Minn.
Elfeld, Persis	1	Arlington Heights
Elvidge, George	3	Lone Rock, Ia.
Engerman, Max, B.S.	3	Chicago
Feldman, Louis	1	Chicago
Fisch, Max Eleazar, B.S.	4	Chicago
Fitch, Franklin Ransom	2	Chicago
Fischer, Walter Rathfon, B.S.	3	Chicago
Ford, Hanby Lewis, B.S.	3	Chicago
Forster, Noslen Kelliher, M.A.	4	Flat Rock
Fox, Nathan Henry, B.S.	4	Spokane, Wash.
Fleischner, Julius	1	Chicago
Fraser, John Howden, B.S., M.S.	4	Chicago
Freark, Ray Henry	3	Monticello, Ia.
Gabriel, Carson King, B.S.	3	Champaign
Gainer, John Fisher	2	Payson
Gernon, Gerald Deland, B.S.	3	Palatine
Geuther, William P	2	Kankakee
Goldberg, Joseph	2	Chicago
Goldblatt, Louis, B.S.	3	Chicago
Goldenson, Max Julian	2	Chicago
Gordon, Harry	2	Chicago
Granger, Wayne B, A.B., B.S.	4	Chicago
Gramer, Edward Phillip, B.S.	3	Phillipsburg, Kan.
Greenfield, Jacob Rachmiel, B.S	4	Chicago
Greenwood, Ray Ellsworth	3	Chicago
Groos, Louis Peter, B.S.	4	Kankakee
Gruenhagen, Arnold Phillip	4	Escanaba, Mich.
Gwin, Ethel Anna, B.S.	3	St. Paul, Minn.
Hanson, Harlow James, B.S.	4	Modesto, Cal.
Hardinger, Paul Milton, B.S.	4	Hutchinson, Minn.
Hartzler, Archie David	1	Gays
Heinekamp, Walter J R	2	Belleville, Pa.
Heller, Henry Frederick, B.S.	3	Chicago
Henderson, Arthur J, A.B., B.S.	4	Des Plaines
Hershey, Charles Owen	2	Lake Mills, Ia.
Hilbert, John William, B.S.	4	La Junta, Colo.
Hoffman, Ralph Wesley	2	Chicago
Houston, Jack Morris	1	Waterloo, Ia.
Hughes, Clarence Orville	1	Chicago
Hyatt, Emory G. B.S.	3	White Heath
Irvine, George B. B.S.	3	Macon, Mo.
Jewell, Harrison Bonwell	2	Lake City, Minn.
Jewell, John Molly	2	Coon Rapids, Ia.
Johnson, John Walter, B.S.	3	Coon Rapids, Ia.
Jongewaard, Jeanette	1	Chicago
Kaiser, Karl J, B.S.	3	Orange City, Ia.
Kampmeier, Otto F	sp	Aurora
Kazmann, Harold Aaron	4	Iowa City, Ia.
Keckler, Ethel L, A.B., B.S.,	4	Battle Creek, Mich.
Kehl, Sylvester Carl	4	Milledgeville
Kelly, Everett Clyde, B.S.	4	Madison, Wis.
Kelly, Edward Joseph	1	Chillicothe
Kipnis, Herman Benzion, B.S.	4	Chicago
Knauer, Sophia Adeline, B.S.	2	Chicago
Kobak, Alfred	1	Brooklyn, N. Y.
Kordenat, Ralph August	2	Chicago
Kraft, Adolph	2	Oak Park
Krout, Maurice Haim	1	Gilman
Kryder, George Buchanan	3	Chicago
Lambertson, Everett Raymond, B.S.	3	Freeport
Laibe, Joseph E	2	Chicago
LaRocca, Joseph, B.S.	3	Chicago
Leonard, Ruth, A.B., B.S.,	3	Chicago
Levin, Abe Louis	2	Chicago
Levinson, Samuel Azor, B.S.	4	Chicago
Little, Ethel Esther	2	Chicago
Livingston, George Shaynin	1	Champaign
Loughery, Harold Barker	2	Chicago
Luzadder, Gilbert Carter	1	Palestine
MacArthur, John Wood, A.B., A.M.	3	Bloomington
Magath, Thomas Byrd, Ph.B., M.S., Ph.D.	3	Baumansville, N. Y.
Maizus, Saul Hymen	1	Oxford, Ga.
Malcolm, William Alexander, B.S.	4	Chicago
Mandel, Robert Meyer	2	Higbee, Mo.
Mann, William Alfred	1	Chicago
Marcus, Morris, B.S.	4	Wilmette
Maryan, Harry I	1	Chicago
Merrill, Charles Leo, B.S.	3	Chicago
Merrill, Don Clayton	2	Richmond, Utah
		Richmond, Utah

Metcalf, G Stanley, B.S.	3	Janesville, Wis.
Meyer, Harold Irving	1	Marissa
Miller, Myron H, B.S.	3	Chicago
Minovitch, Charles Ray	1	Chicago
Mitchell, Joseph Edgar	2	Franklin, Tex.
Monroe, Paul Burns	1	Fond du Lac, Wis.
Morin, Oswald, B.S.	4	Danville
Moulton, Gertrude Evelyn, A.B., B.S.	4	Reva, S. D.
Mroz, Rudolph	2	Chicago
Mulfinger, Carl Leonard	2	Meadville, Pa.
Murphy, Samuel Alfred	3	Madison, Wis.
Mustell, Robert Rowland, B.S.	4	Cashmere, Wash.
Myers, William Henry	1	Coal Valley
McCorkle, Walker Ellsworth, Ph.B., M.S.	3	Dawson, O.
McCoy, Harold J	3	Imperial, Neb.
McCradie, Arthur Rose	3	Grandin, N. D.
McCradie, Robert Drinnan, B.A.	3	Grandin, N. D.
McCrary, Charles Robert	4	Ireton, Ia.
McDermott, Raymond Adam, B.S.	4	Batavia
McGuinness, Hugh Stanley, B.S.	4	Chicago
McNally, William D. A.B.	sp	Chicago
Navarro, Regino Jesus	4	Manila, P. I.
Naroditsky, Samuel, B.S.	3	Chicago
Nemerofsky, Jacob	2	Chicago
Nickels, Arnold Carl	2	Watertown, Wis.
Noonan, William James, B.S.	3	Elma, Ia.
Norviel, Herald Bernard, B.S.	3	Urbana
Ochs, Milton M	3	Oak Park
Oliver, Henry Earle	3	Sigourney, Ia.
Olson, Albert Eric, B.S.	3	Duluth, Minn.
Ostler, David Elmer, B.S.	3	Salt Lake City, Utah
Peterson, Joe Oliver, B.S.	4	Princeton, Minn.
Peterson, Peter Eberhart	2	Frost, Minn.
Petrass, Andrew, B.S.	3	Chicago
Pickoff, Fred, B.S.	3	Russia
Pilka, Herman	1	Chicago
Pinkerton, Roger Edmond, A.B.	2	Pawnee City, Neb.
Plice, Samuel Glenn	2	Chicago
Polkovitz, Mannie Arnold	2	Chicago
Pontius, Guy Victor	1	Chicago
Potts, Albert LeRoy	1	Rochester, Ind.
Prilla, Evsay	1	Honey Bend
Propst, Duane Willard, A.B., B.S.	4	Chicago
Przypyszny, Casimir	2	Springfield
Parker, James W, Jr.	3	Chicago
Paskind, Harry A, B.S.	3	Peoria
Pauker, Norbert, B.S.	3	Chicago
Paul, Berenice Marie, A.B.	1	Chicago
Rackliffe, Thomas T	3	Chicago
Raginsky, Oscar	2	St. Joseph, Mo.
Ramsey, Samuel Watson	1	Chicago
Rappaport, Benjamin	1	Chicago
Resnik, Tobias	2	Chicago
Rettig, Frederick August	2	Chicago
Richmond, Frank	2	Chicago
Reinhard, Otto Andrew	1	Cullom
Riess, Carl John	1	Pontiac
Rissinger, Arthur Joe	1	Mason City
Rogers, William Turner, B.S.	4	Hume
Rose, Webster Barclay, A.B.	1	Gay
Rosenberg, Maurice Joseph	2	Chicago
Rosenberg, Harry Louis, B.S.	4	Chicago
Rost, Theodore August	2	Petersburg
Rozinsky, Julius	2	Chicago
Rubin, Henry Harry	1	Chicago
Rubin, Irwin	2	Chicago
Rubright, Franklin LeRoy, B.S.	3	Emerson
Rudnik, Dorrin Fred	2	Chicago
Ruppenthal, Armond, B.S.	3	Brillon, Wis.
Rush, Paul White	2	Detroit
Rutledge, James Hirst	1	Farmer City
Saelhof, Clarence Charles	2	Chicago
Saunders, Hubbard Prather, B.A.	4	Hickman, Ky.
Schachter, Joseph Andrew, B.S.	4	Chicago
Schmidt, Elmer J, B.S.	4	Seymour, Wis.
Schmidt, Herbert	3	Chicago
Schroeder, Paul Louis, B.S.	4	Nashville
Schroeder, Robert Henry	2	Nashville
Shapiro, Irving Joseph	2	Chicago
Shurtleff, Raymond S	3	Cuba
Sill, Grant Wood, A.B.	3	Chicago
Sinai, Lena (Mrs)	sp	Chicago
Slaughter, Gertrude M (Mrs)	3	Chicago
Smith, Tony T	1	Chicago
Smith, Beulah Marie	1	Chicago

Soloway, Herman M	2	Minneapolis, Minn.
Sodaro, Joseph Clarence	1	Aurora
Spector, Hyman	2	Chicago
Spiesman, Irvin Gabriel	2	Chicago
Sponder, Joseph, B.S.	3	Chicago
Stevens, Joseph Bonsall, B.A.	3	Sioux Falls, S. D.
Stewart, Frank, A.B.	2	Champaign
Stone, Theodore, B.S.	3	Chicago
Stori, Frank	1	Chicago
Stromberg, William Benjamin	3	Chicago
Testin, Henry	2	Joliet
Tharp, Herbert Milton, B.S.	4	Reasnor, Ia.
Thompson, Fred Rush	3	Cedarville
Tinzmann, Erich Ludwig	1	Chicago
Tolpin, Samuel	1	Chicago
Traisman, Alfred Stanley	2	Chicago
Ullman, Manfred Prescott	1	Oak Park
Van Pelt, Theodore Ross	2	State Center, Ia.
Vaughan, Edward Perry	4	Minneapolis, Minn.
Velitchkoff, Metodi, B.S.	4	Bulgaria
Walker, Robert Allyn, B.S., B.A.	3	Alhambra, Cal.
Warmolts, Lambertus	3	Oregon
Warren, Homer Samuel, Jr.	2	Chicago
Way, Charles Thomas	2	Fox Lake, Wis.
Weaver, George Lynn, B.S.	4	Antigo, Wis.
Weber, Leonard Fred	2	Gilman
Welensky, David Arthur	1	Chicago
Wesner, Peter J	3	Chicago
Whitmire, Clarence Leonard	4	Waverly, Ia.
White, Cyrus Lanyon, B.S.	3	Mineral Point, Wis.
Wilbun, Vernon Homer	2	Lawrence, Kan.
Williamson, Earle Willbre, B.S.	4	Tuscola
Wilson, Clarence Leon	3	Carbondale
Wilson, Julian Harmon	1	Columbus, O.
Wishniefsky, Louis J	2	Chicago
Wittelle, Frank Max, B.S.	3	Chicago
Woodruff, George Henry, B.S.	3	Joliet
Woods, Ralph A	3	Orange, Cal.
Wright, William Edson, B.S.	3	Gifford
Yonkers, William	3	Chicago
Zeitlin, Nathan	1	Chicago
Zulaybar, Safronio	2	P. I.

## COLLEGE OF DENTISTRY

Name	Year	Residence
Arado, Mayme	1	Chicago
Arneson, Odell Thomas	4	Whitehall, Wis.
Bacher, William	4	Bayonne, N. J.
Badzmierowski, Conrad	1	Chicago
Bancroft, John Wesley	2	Greenup
Barron, Leonard	1	Chicago
Bellows, Marion Ellsworth	4	Kalamazoo, Mich.
Berger, Maurice	1	Chicago
Beshoar, Daniel L	1	Burnetts Creek, Ind.
Best, Reginald Bladen	4	Evanston
Black, Russel F	1	Beardstown
Blatt, Arthur Ernest	4	Chicago
Bloom, Max W	4	Chicago
Bluestein, Benjamin	4	Chicago
Boeck, Walter	1	Chicago
Brinkman, Henry	2	Elgin
Brodsky, Jacob	4	Chicago
Brooks, Stanley O	4	Chicago
Brown, Bradford Thomas	2	Faulton, S. D.
Broz, Emil	1	Chicago
Bush, Earl F	4	Chicago
Carter, Lowell Jameson	4	E. Stroudsburg, Pa.
Campbell, George Alexander	4	Des Moines, Ia.
Chapman, Joseph	2	Grand Forks, N. D.
Chase, Owen R	4	Chicago
Chenoweth, Avery	2	Viroqua, Wis.
Clark, Charles Shelby	2	Mason City
Clasens, Edwin	2	South Bend, Ind.
Coe, Emmons Sylvester	2	Gilman
Colbert, Harry E, D.D.S.	sp	Bucyrus, O.
Condren, Francis Leo	4	Weeping Water, Neb.
Cook, Harry	4	Lewiston, N. Y.
Cooper, Louis	3	Hicksville, O.
Dahlke, Walter Gilbert	2	Chicago
Dann, Forrest A	4	Westfield, Wis.
Denny, Roy	1	Sandusky, O.
Di Cosola, Salvator	3	Quincy
		Chicago



Di Cosola, Septimo	4	Chicago
Dippel, Frederick	4	North Freedom, Wis.
Doyle, Thomas Lee	4	Fulton
Drell, Benjamin	1	Chicago
Druess, Lionel N	3	Chicago
Duke, Harrison Reed	4	Chicago
Dunn, Robert Winlock	2	Chicago
Dyer, Lewis A	2	Beardstown
Elfenbaum, Hyman	1	Danville
Pinnegan, William Henry	3	Chicago
Fischer, Jacob	1	Chicago
Forslund, Cecil W	4	Chicago
Forwalter, Maurice	4	Fairbury, Neb.
Frost, George	1	Convoy, O.
Frost, Harold	1	Stevens Point, Wis.
Geduldig, Chester	4	Stevens Point, Wis.
Goldman, Maurice	4	Chicago
Goodfriend, Ervin	4	Chicago
Goodman, Leon	2	Chicago
Gorman, Elsie (Mrs)	1	Dubuque, Ia.
Greenwood, Robert Gerald	4	Chicago
Grief, Uhlman	2	Chicago
Griseto, Victor L	2	St. Joseph, Mo.
Halbmaier, Albert Eduard	1	Chicago
Halmhuber, Paul	4	Flanderau, S. D.
Hamachek, Slavic O	4	Detroit, Mich.
Handler, Louis	4	Kewanee, Wis.
Harris, Peter	4	Chicago
Harvey, Ward Winfield	4	Sudena, Greece
Hayes, Cecil A	2	Bridgewater, S. D.
Hein, L F A	1	Detroit, Mich.
Henderson, Martin S	4	Stevens Point, Wis.
Hermes, Elmer A	4	Fargo, N. D.
Hines, Harry C	1	Aurora
Hohman, Ralph H	1	Champaign
Horn, Solomon Leb	1	Nashville
Houda, Emily	2	Chicago
Hughes, Luther	3	Cicero
Huseby, Richard J	1	Mason City
Ibarra, Asdrubal K	4	Grand Forks, N. D.
Jones, Claude M	1	Leon, Nicaragua
Jones, John	2	Camp Point
Kane, Joseph John	1	Mason City
Kasprak, Joseph E	4	Mt. Pleasant, Mich.
Kastel, Abe J	4	Cicero
Kingdon, Perry S	4	Chicago
Kirchner, Ernest <sup>1</sup>	1	Fairbury
Krabbe, Newton J	2	Chandlerville
Krauser, Elba	1	Champaign
Kretshmer, Sam	1	Bushnell
Lace, John	1	Chicago
Lachaut, Anna	4	Waukegan
Lande, Harry	1	Bohemia, Europe
Landgren, Clarence A	1	Chicago
Lapp, Samuel Max	4	Fergus Falls, Minn.
Leever, Frank	4	Chicago
Lehman, Albert	1	Vandalia
Lewbin, Hayman	4	Chicago
Lewis, Jacob	2	Chicago
Lippitz, Maurice Aaron	1	Chicago
Loomis, Clifford C	4	Chicago
Mack, Joseph Vincent	4	Chicago
Mackay, James	1	Chicago
Maillard, Felix	1	Bellaire, O.
Marchand, Raoul	4	Mullan, Ida.
Margosian, Krikar S. A.B.	4	Trinidad, B. W. I.
Marsily, Genslin Raymond	4	Rolla, N. D.
Metcalf, William George	4	Iowa City, Ia.
McGugin, Donald Nye	4	Honolulu, H. I.
McKeague, Lee M	4	Sireator
Middleton, Williams	4	Pierre, S. D.
Middleton, William Vance	2	Williamsport, Pa.
Mills, Vincent	4	Argos, Ind.
Moldenhauer, Alfred	1	Des Moines, Ia.
Mollenkopf, Evan	1	Glenwood, Ia.
Munro, Edward F	1	Des Plaines
Naroditsky, Maurice	2	Convoy, O.
Nava, Jose	1	Chicago
Neff, Eda Dee	4	Chicago
Newell, Mary	1	Manila, P. I.
Nielson, Andrew Groat	4	Bethany, Mo.
Nowicki, Edward	2	Chicago
	2	Chicago

<sup>1</sup>Deceased.

O'Conner, John Francis	4	Chicago
Offenlock, Howard Hall	2	Chicago
Ort, Robert K	4	Churubusco, Ind.
Plevo, Joseph Edward	4	Chicago
Ploche, Leon	4	Saniago, Cuba
Prehn, Delos Carl	2	Wausau, Wis.
Pretlow, Russell T	4	Winchester, Ind.
Rasmussen, Carl	1	Copenhagen, Denmark
Ray, Randall T	1	Chicago
Reed, Howard H	1	Danville
Reese, William Ethalbert	2	Payson City, Utah
Reiland, Marjorie M	4	East Chicago, Ind.
Rifas, Frank	1	Chicago
Ritholz, Benjamin D	1	Chicago
Robbins, Clarence J	4	Carthage, S. D.
Rock, William	1	Dixon
Rockey, Clinton G	2	Joliet
Rose, Claud M, B.S.	1	Washington, D. C.
Rosen, Sam	1	Chicago
Rosenberg, Harry	1	Maywood
Ruben, Harry	4	Chicago
Rund, Jaroslav	4	Chicago
Ryan, Edward James	2	Chicago
Saperstein, Zachary	1	Balta, Russia
Salnik, Helen, D.D.S.	4	Riga, Russia
Sannes, Dedrik	4	Madison, Wis.
Schultz, Louis William	3	Oak Park
Scott, Earl	1	Mullan, Ida.
Shalek, Kenneth	4	Chicago
Shepard, Eugene F	1	Chicago
Simon, Barney H	4	Chicago
Skaten, Otto M	4	Whitehall, Wis.
Smechebier, Willis	1	Chicago Heights
Snow, J. M., D.D.S.	sp	Chicago
Spafford, Eugene A	4	Rockford
Spillane, Leslie O	4	Battle Creek, Mich.
Stallard, Harvey, Ph.D.	3	Minneapolis, Minn.
Stiernberg, Robert Camie	4	Port Lavaca, Tex.
Stockstad, Walter Ralph	2	Volga, S. D.
Strikly, Maurice	1	Chicago
Stuenkel, Ernest G	1	Brookfield
Sturman, Henry	1	New York, N. Y.
Turobinsky, Tadeujz	1	Grodzisk, Russia, Poland
Van Pelt, Belford	1	Rock Island
Vita, Emil M	4	Chicago
Webb, Erskine W	4	Edgemont, S. D.
Weidner, Hubert P	4	Prairie View
West, Harold T	4	Stevens Point, Wis.
Willis, Herbert W	1	Joppa
Wilmoth, William	1	Concordia, Kan.
Wilson, Marshall O	1	Jacksonville, Fla.
Wong, Benjamin K	1	Naxaimo, B. C.
Worsley, Raymond E	2	Dixon
Wright, Leon Alton	1	Delavan, Wis.

## SCHOOL OF PHARMACY

Name	Course	Residence
Almond, Thomas E	P 2	* † Aurora
Alsteadt, Benjamin	PC 3	* † Chicago
Anderson, David Rangnald	P 1	* † Chicago
Aron, David	P sp	* † Chicago
Baird, Harold Glen	P 2	* † Harvard
Bakkers, Peggie Stilwell (Mrs)	P 1	* † Chicago
Bane, Robert Lyle	P 2	* † Kansas
Bangert, Howard Wells	P 2	* † Chicago
Battershall, Lila Doolittle	P 1	* † Waukegan
Black, Thomas Wendell	P 1	* † Paris
Blaisieiss, Sydney	P 1	* † Chicago
Bodinus, Edmund	PC 3	* † Milwaukee, Wis.
Boe, Russell Alfred	P 1	* † Chicago
Boylan, Harry Francis	P 1	* † Bloomington
Brockhoff, Lewis Paul	PC 3	* † Perham, Minn.
Brown, W Edwin	P 1	* † Quincy
Byanskas, Alexander	P 1	* † Chicago
Cain, Marion Wilbur	P 1	* † Virden
Carothers, Marietta Lucille	P 1	* † Ansley, Neb.
Carpenter, Frank Justin	P 1	* † Quincy
Cate, Rollin L	P 1	* † Streator

\*In attendance 1st semester.

†In attendance 2nd semester.

Cooke, John Benjamin	P	1	• † Goodland, Ind.
Connolley, Virgil George	P	1	• † Mt. Pulaski
Cooper, Paul Francis	P	1	• † Astoria
Corson, Leonidas M	P	1	• Genoa
Dartt, Matthew Marvin	P	1	• † Carmi
Dedic, Libbey	P	2	• † Chicago
Diggs, James Harrison	P	2	• † Chicago
Dinnsen, Harry Nicholas	P	sp	• † Chicago
Dorszewski, Louis	P	1	• † Chicago
Dubsky, Antoinette M (Mrs)	P	sp	• † Chicago
Eisenberg, Ira Isadore	P	1	• † Chicago
Elliott, Victor	P	2	• † Casey
Feeney, James Francis	P	sp	• † Chicago
Felger, Carl Gustave	P	1	• † Chicago
Feuerbacher, Clarence	P	1	• † Lincoln
Foster, Dennison D	P	1	• Granite City
Fox, Matthew M	P	sp	• Chicago
Frase, Karl William	PC	3	• † Chicago
Fraser, Ralph Eldridge	P	2	• † Davis Junction
Fritschel, Arno William	PC	3	• † Chicago
Gardner, Burke	P	1	• † McLean
Goldman, Ira	P	2	• † Chicago
Goldstein, Hilda	P	1	• Chicago
Gordon, Oscar	P	sp	• † Chicago
Graham, Clarence Henry	P	1	• Carlinville
Grosse, Arthur Gustav	PC	3	• Chicago Heights
Grosse, Friedrich W	P	1	• † Chicago Heights
Guintier, Seward Haise	P	1	• † Chicago
Harris, Warren Frank	P	1	• † Chicago
Hauber, Josephine Cecelia	P	1	• † Chicago
Higgins, Edward Charles	P	1	• † Quincy
Hill, Leo	P	1	• † Alma, Mich.
Hlinka, Germaine Gladys	P	1	• † Cicero
Holston, Clarence E	P	1	• † Nashville
Hough, Gordon Campbell	P	1	• Mason
Hultgren, Martin Edward	P	1	• Cambridge
Humma, James Bernard	P	2	• † Metropolis
Humphrey, Allan	P	1	• † Vandalia
Janda, Joseph	P	sp	• † Chicago
Jenkins, Harlan Leo	P	1	• † Pontiac
Jensen, Harry Jesse	P	1	• † Chicago
Jones, Adelphus Arbuckle	P	1	• † Burlington, Ia.
Jones, Harold Vernon	P	2	• † Cowden
Johnson, Paul Ellsworth	P	2	• † Mt. Sterling
Kaeuff, Ludwig Walter	P	1	• Chicago
Kartman, Nathan Sam	P	2	• † Chicago
Kelch, Henry C	P	1	• † Decatur
Knaak, Emilie Elizabeth	P	sp	• † Deerfield
Kuchinski, Isabelle Genevieve	P	1	• † Gary, Ind.
Kunkel, Wayne Andrew	P	2	• † Litchfield
Laegeler, Julius Charles	P	2	• † Highwood
Langerman, Alexander	P	1	• Chicago
Lawton, Ray	P	sp	• Taylorville
Leckband, Theodore August, Ph.G. (Univ. of Ill., 1915)	P	sp	• Chicago
Lesser, Hyman	P	sp	• † Chicago
Levy, Benjamin	P	1	• Chicago
Lightfoot, Baxter Elijah	P	1	• † Farmington
Lowe, Edward, A.B., 1916 <sup>1</sup>	P	1	• Little Rock, Ark.
Lumpp, Raymond Joseph	P	1	• Chicago
Madera, Jaroslav Robert	P	1	• † Chicago
Maether, Carl	P	sp	• † Chicago
Maloney, Harry	P	1	• † Livingston, Mont.
McBride, Stanley Edward	P	1	• † Elgin
McDaniel, Gerald Litton	P	2	• † Taylorville
McGrath, John Oliver	P	1	• Toluca
Mastrofsky, Ben	P	2	• † Chicago
Merrill, Fayette Oscar	P	1	• † Des Moines, Ia.
Million, Floyd Hezekiah	P	1	• Rockport, Mo.
Milles, Leo	P	2	• † Chicago
Morris, Charles Loran	P	1	• Johnston City
Moyen, George Frederick	P	2	• † Chicago
Pahl, Hans C	P	1	• † Downers Grove
Park, Albert	P	2	• † Chicago
Petersen, E Silas	P	1	• Joliet
Purdum, Roy Wayne	P	1	• Macomb
Quick, Noble Jennings	P	1	• St. Francisville
Reinschreiber, Meyer	P	sp	• Chicago
Rudie, Grant	P	1	• Westby, Wis.
Schmidt, Sidney	P	1	• † Chicago
Schumacher, Howard	P	1	• † Highland Park
Schur, Irving Carl	P	1	• † Kenilworth

<sup>1</sup>(Arkansas Baptist College

Sides, William	<i>P</i>	<i>1</i>	• † <i>Moline</i>
Sisson, George Harper	<i>P</i>	<i>1</i>	• <i>Belvidere</i>
Sister, Wilhelmina	<i>P</i>	<i>sp</i>	• † <i>Chicago</i>
Skelton, Maurice Bradford	<i>P</i>	<i>2</i>	• † <i>Urbana</i>
Still, Floyd Benton	<i>P</i>	<i>sp</i>	• † <i>De Kalb</i>
Terry, Ralph	<i>P</i>	<i>1</i>	• † <i>Aurora</i>
Thompson, Charles Samuel	<i>P</i>	<i>1</i>	• † <i>DuQuoin</i>
Tomas, John	<i>P</i>	<i>1</i>	• † <i>Chicago</i>
Van Tongeren, Perry John	<i>P</i>	<i>sp</i>	• <i>Chicago</i>
Vella, Ninetta	<i>P</i>	<i>1</i>	• † <i>Chicago</i>
Volk, Paul	<i>P</i>	<i>sp</i>	• <i>Chicago</i>
Walker, Charles William	<i>P</i>	<i>sp</i>	• † <i>Kankakee</i>
Waxman, Lewis William	<i>P</i>	<i>1</i>	• † <i>Chicago</i>
White, Florence Edythe	<i>P</i>	<i>sp</i>	• † <i>Litchfield</i>
Wilson, Charles Rodger	<i>P</i>	<i>2</i>	• † <i>Carbondale</i>

CHICAGO CENTER FOR THE TRAINING  
OF TEACHERS OF THE TRADES  
AND INDUSTRIES, 1918-19

William Alston  
Charles Edward Ammeson  
Steven Edson Austin  
John Barnett  
John Richard Bassett  
Paul Bechman  
Alfred Bellis  
Robert Gidion Bennett  
Laurence G Berg  
Lawrence Beyer  
Julius Arthur Birkland  
William Alexander Bradley  
Tony Brand  
John Thomas Braun  
Lawrence Brooks  
Alfred William Christ  
Clarence Cline  
Edward Bowen Daniels  
Angus King Davidson  
Charles Joseph Dubats  
Robert Duncan  
Michael Durkin  
Frederick Lawrence Emmel  
Joseph John Engleman  
Edward Fitzgerald  
Sylvester Fox  
John Forbes Fraser  
Henry Fries  
Alfred Wilfred Garrett  
Thomas Glchrist  
Frank Good  
William Guth  
William Elmer Greenwald  
Ralph Greenwalt  
Hugo Fred Hansen  
William Charles Hansen  
Henry G Heimstaedt  
Arthur George Heinzelman  
Leonard Hennes  
Harry Peter Hess  
John Hewitt  
Charles Homola  
John Homola  
George Matthew Hood  
William Gilbert Huebert  
Carl Henry Jacobson  
Arthur Benjamin Johnson  
John A. Johnson  
Verner Johnson  
Francis Jordan  
Edward Kallman  
Harry Keag  
Edward Martin Kelly  
Walter Kelsey  
J William Kenney  
Walter Klier  
Ernest William Knowles  
William Herman Koehne  
Jerome Krieger  
Edward Alcker Lacker

**Chicago**

John Albert Lindquist  
John Henry Loser  
Therman Loss  
Solomon John Lowery  
Charles Lundin  
Harry Madeen  
Oscar Julius Manthey  
Peter Martin  
Benjamin McCall  
Albert Richard McConnell  
Michael Mester  
Carl William Meyer  
Henning Frederick Michel  
Harry Mitchell  
Thomas Monday  
Edward Thomas Murrin  
John Henry Newman  
Thomas Nolan  
Lawrence Allie Olson  
Carl Victor Olson  
William Pankonin  
Eric Gustave Pihl  
William Frank Pommerening  
Urban Levi Ready  
Thomas Benjamin Reed  
Cornelius Relk  
Charles Rogers  
John Russell Ross  
Emil Saak  
Maximilian Sandmeyer  
Russell Ray Sands  
Timothy Scanlan  
Ernest Schendel  
Fred W Sedgwick  
Michael Sexton  
James Shirey  
Harry Smith  
John Henry Soller  
Robert Spearman  
John Steffens  
Fred Christian Stegman  
Fred G Stemler  
Alexander Steven  
Arthur Stockman  
Richard Arthur Stolzenberg  
Adolph Norman Straka  
Timothy Joseph Sullivan  
Joseph Tendra  
Thomas Lee VanScoyoc  
Gus Manuel Wahlstrom  
Arnold Weinman  
Walter Weitzel  
Edward Wiley  
John Addison Wilkinson  
Edward B Williams  
Owen John Williams  
James Wilson  
Harry Henry Wolf  
Otto Zindars

[illegible]

# DEGREES CONFERRED

1918

Degrees are conferred at four times in the year, as follows: (1) at the end of the first semester, in February; (2) at the end of the second semester, in June; (3) at the end of the Summer Session, in August; (4) in October. Unless otherwise stated, the degrees in the following lists were conferred on June 12, 1918. The candidates whose names are preceded by an asterisk have entered upon service for the national defense, the specific service having been approved in each case by the University authorities. C following the name signifies that the full requirements for the degree were completed.

## THE UNDERGRADUATE COLLEGES

### Degrees of Bachelor of Arts, Bachelor of Science, and Bachelor of Music

- \*HOWARD GREEN ABBOTT, Bachelor of Science (Agriculture)
- ALICE NOWELL ACKERT, Bachelor of Science (Agriculture)
- LEOTA VALENTINE ADAMS, Bachelor of Arts (Liberal Arts)
- \*WARREN DAVID ADAMS, Bachelor of Science (Architectural Engineering)
- MADALANE ZELOMIA AINSWORTH, Bachelor of Arts (Liberal Arts)
- KATHRYN REBECCA ALBAUGH, Bachelor of Arts (Liberal Arts)
- CHESTER LEON ALBEE, Bachelor of Science (Agriculture)
- \*HESTER ADA ALLEN, Bachelor of Science (Agriculture)<sup>1</sup>
- \*HARRY HAVENS ALMOND, Bachelor of Arts (Commerce)
- MABEL GERDENA ALTPETER, Bachelor of Arts (Liberal Arts)
- RUTH AMELIA ALVERSON, Bachelor of Arts (Liberal Arts)
- BIRDINA MARGUERITE ANDERSON, Bachelor of Arts (Liberal Arts)
- \*CARL LEONARD ANDERSON, Bachelor of Arts (Commerce)
- EARL WILLIAM ANDERSON, Bachelor of Arts (Liberal Arts)
- EDLA VICTORIA ANDERSON, Bachelor of Science (Agriculture)
- JENNIE ANDERSON, Bachelor of Arts (Liberal Arts)
- ROY B ANDERSON, Bachelor of Science (Agriculture)<sup>2</sup>
- MARY ALBERTA ANDREWS, Bachelor of Arts (Liberal Arts)
- RUTH HELEN ANDREWS, Bachelor of Arts (Liberal Arts)<sup>1</sup>
- ROBERT HORATIO ANTOSZEWSKI, Bachelor of Arts (Liberal Arts)<sup>1</sup>
- ANNIE LILIAN ARENDS, Bachelor of Arts (Liberal Arts)<sup>1</sup>
- CLARA GRACE ARMINGTON, Bachelor of Music<sup>2</sup>
- \*JAMES LANDRETH ASH, Bachelor of Arts (Liberal Arts)
- HAZEL ATTEBERRY, Bachelor of Arts (Liberal Arts)<sup>1</sup>
- EUNICE LOUISE BADGER, Bachelor of Arts (Liberal Arts)
- \*EARL WILLIS BAILEY, Bachelor of Science (Commerce)
- NELLIE ALLISON BALCH, Bachelor of Science (Agriculture)
- \*TED ALBERT BALDERSON, Bachelor of Science (Architectural Engineering)
- VELDA CHRISTENA BAMSBERGER, Bachelor of Arts (Liberal Arts)
- RUTH LILLIAN BARNES, Bachelor of Arts (Liberal Arts)
- WINIFRED BARNES, Bachelor of Arts (Liberal Arts)
- JENNIS EULALIA BARRY, Bachelor of Arts (Liberal Arts)
- RUTH PORTER BARTHOLOMEW, Bachelor of Arts (Liberal Arts)
- \*HARRY OWEN BARTLETT, Bachelor of Science (Architecture)
- MATILDA MAY BEACHLER, Bachelor of Science (Agriculture)<sup>1</sup>
- \*CHESTER RANDALL BEAR, Bachelor of Arts (Commerce)
- \*OWEN CHAUNCEY BEATTY, Bachelor of Science (Agriculture)
- RUTH MARIE BECK, Bachelor of Arts (Liberal Arts)
- EDITH MAY BELL, Bachelor of Arts (Liberal Arts)<sup>1</sup>
- BEULAH BEATRICE BENTLEY, Bachelor of Arts (Liberal Arts)<sup>1</sup>
- CORA BERGER, Bachelor of Arts (Liberal Arts)
- LOUIS ROLLAND BERNER, Bachelor of Science (Science)<sup>2</sup>
- CARL BEUST, Bachelor of Science (Agriculture)
- ELMER ALFRED BIERBAUM, Bachelor of Science (Agriculture)
- BERTHA HELEN BING, Bachelor of Arts (Liberal Arts)
- JOHN WESLEY BIRCHARD, Bachelor of Science (Science)<sup>2</sup>
- LEOLA MARY BIRCHARD, Bachelor of Science (Agriculture)
- \*BERYL A BLACK, Bachelor of Arts (Liberal Arts)
- ABRAHAM BLACKSTONE, Bachelor of Science (Civil Engineering)
- LOUISE BOEHMER, Bachelor of Arts (Liberal Arts)
- MABEL HELEN BOLEN, Bachelor of Arts (Liberal Arts)
- RALPH WALDO BOLTON, Bachelor of Science (Electrical Engineering)
- \*WYMAN JESSE BOLTON, Bachelor of Science (Mechanical Engineering)
- \*CHARLES EDGAR BORN, Bachelor of Science (Agriculture)
- ESTHER HORTENSE BOYLE, Bachelor of Science (Agriculture)
- MARJORIE LILAH BRAND, Bachelor of Arts (Liberal Arts)
- EUGENIE JOSEPHINE BRANDON, Bachelor of Arts (Liberal Arts)
- CALANTHE MIRIAM BRAZELTON, Bachelor of Arts (Liberal Arts)

<sup>1</sup> Degree conferred October 16, 1918.

<sup>2</sup> Degree conferred February 16, 1918.

<sup>3</sup> With thesis.

- HOWARD DAVID BREECE, Bachelor of Arts (Liberal Arts)  
 PAUL REX BREES, Bachelor of Arts (Liberal Arts)<sup>1</sup>  
 \*ERWIN RISLEY BRIGHAM, Bachelor of Science (Commerce)  
 AGNES MARIE BROADWELL, Bachelor of Arts (Liberal Arts)  
 BRUCE KEITH BROWN, Bachelor of Science (Science)<sup>1</sup>  
 ELMER ELLSWORTH BROWN, Bachelor of Science (Agriculture)  
 \*JULIUS BROWN, Bachelor of Science (Railway Civil Engineering)<sup>2</sup>  
 NORMAN FERDINAND BRUNKOW, Bachelor of Science (Architectural Engineering)  
 \*ROBERT ALFRED BRYANT, Bachelor of Arts (Commerce)  
 JOSEPH BRUCE BUCKLER, Bachelor of Arts (Liberal Arts)<sup>1</sup>  
 \*WILLARD EDWIN BULL, Bachelor of Science (Electrical Engineering)  
 LAVERNE BURGAN, Bachelor of Arts (Liberal Arts)  
 INEZ LILLIAN BURLEIGH, Bachelor of Arts (Liberal Arts)  
 \*REID ALBERT BURNETT, Bachelor of Science (Electrical Engineering)  
 WILLIAM HENRY HARRISON BUSCHMANN, Bachelor of Arts (Liberal Arts)  
 MARY LATHROP CALDWELL, Bachelor of Arts (Liberal Arts)  
 GEORGE MARTIN CAMERON, Bachelor of Science (Agriculture)  
 ETHELRED ERASMUS ADOLPHUS CAMPBELL, Bachelor of Arts (Liberal Arts)<sup>2</sup>  
 FLORENCE CARMAN, Bachelor of Arts (Liberal Arts)  
 EARLE WESLEY CARRIER, Bachelor of Science (Civil Engineering)  
 \*BENJAMIN FRANKLIN CARTER, Bachelor of Science (Ceramic Engineering)  
 NEVA MAE CHADDERON, Bachelor of Arts (Liberal Arts)  
 AKHIL CHANDRA CHAKRAVARTY, Bachelor of Science (Mechanical Engineering)  
 YE YOUNG CHAN, Bachelor of Arts (Liberal Arts)<sup>1</sup>  
 \*DONALD VANDERBURG CHAPMAN, Bachelor of Science (Agriculture)  
 EDITH MAE CHAPMAN, Bachelor of Arts (Liberal Arts)  
 \*VERNE DE VERE CHARLESTON, Bachelor of Science (Science)<sup>2</sup>  
 JUNG TING CHEN, Bachelor of Science (Agriculture)  
 JAMES BENNET CHILDS, Bachelor of Arts (Liberal Arts)<sup>1</sup>  
 JUAN ORTIZ CHIOCO, Bachelor of Science (Agriculture)<sup>2</sup>  
 LESTER HOWARD CHRISTEN, Bachelor of Science (Architectural Engineering)  
 \*ARTHUR BAILEY CHRISTOPHER, Bachelor of Science (Ceramic Engineering)  
 GRACE JEAN CHRISTY, Bachelor of Arts (Liberal Arts)  
 CHARLES HENRY CLARAHAN, Bachelor of Science (Railway Civil Engineering)  
 \*JAMES GLEN CLARK, Bachelor of Science (Commerce)  
 CARL CLEGG, Bachelor of Science (Mechanical Engineering)  
 \*ORLIE MARTIN CLEM, Bachelor of Arts (Liberal Arts)  
 \*VIOLA MARGARET COE, Bachelor of Arts (Liberal Arts)  
 ESTHER DORRIS COHEN, Bachelor of Arts (Liberal Arts)  
 BENJAMIN EMANUEL COHN, Bachelor of Science (Science)<sup>2</sup>  
 \*DUANE CAMPBELL COLMEY, Bachelor of Arts (Liberal Arts)  
 \*LEWIS JASPER CONANT, Bachelor of Arts (Liberal Arts)  
 \*FRANK HAROLD CONGLETON, Bachelor of Science (Agriculture)  
 \*WILLIAM FRANCIS COOLIDGE, Bachelor of Science (Agriculture)  
 \*PHILIP CORPER, Bachelor of Arts (Commerce)  
 DALE CLAIR CORZINE, Bachelor of Science (Agriculture)<sup>1</sup>  
 MARY DELIGHT CRAIGMILE, Bachelor of Arts (Liberal Arts)<sup>2</sup>  
 \*ROBERT JAMES CRAIGMILE, Bachelor of Science (Electrical Engineering)  
 \*JOSEPH FRANCIS CREEDON, Bachelor of Science (Architectural Engineering)<sup>2</sup>  
 \*ELDRED EVERETT CRESS, Bachelor of Science (Architectural Engineering)  
 HARLAN RUSSELL CRILEY, Bachelor of Arts (Liberal Arts)<sup>1</sup>  
 \*ARTHUR OGAN CROSIAR, Bachelor of Science (Agriculture)<sup>2</sup>  
 MARY ANN CROSS, Bachelor of Arts (Liberal Arts)  
 GEORGE MADILL CULLINANE, Bachelor of Science (Electrical Engineering)  
 ALTHEA ELIZABETH CURRY, Bachelor of Arts (Liberal Arts)<sup>1</sup>  
 MAJOR CUSKADEN, Bachelor of Science (Agriculture)<sup>2</sup>  
 EDNA OTILIA DAHLIN, Bachelor of Science (Agriculture)  
 GERALDINE DALY, Bachelor of Arts (Liberal Arts)  
 \*FREDERICK ABRAM DAVIS, Bachelor of Science (Agriculture)  
 HELEN GROSS DAVIS, Bachelor of Arts (Liberal Arts)  
 JOHN EUGENE DAVIS, Bachelor of Arts (Commerce)  
 \*NEULON DEAHL, Bachelor of Science (Science)<sup>1</sup>  
 OLIVE GERTRUDE DEAN, Bachelor of Arts (Liberal Arts)  
 EARL WILLIAM DEERING, Bachelor of Science (Civil Engineering)  
 CHARLES HACKETT DENSON, Bachelor of Science (Agriculture)<sup>2</sup>  
 ROSE CAROLYN DENNIS, Bachelor of Arts (Liberal Arts)  
 \*KARL LUDWIG DERN, Bachelor of Science (Science)<sup>2</sup>  
 GUSTAVE HERMAN DEUCHLER, Bachelor of Science (Architectural Engineering)  
 \*HELGE CHRISTOPHER DIESERUD, Bachelor of Science (Mechanical Engineering)  
 \*JOHN WAMSER DIETZ, Bachelor of Arts (Commerce)  
 LAURA EMILY DOLE, Bachelor of Music<sup>2</sup>  
 HELEN LAURA DOOCY, Bachelor of Arts (Liberal Arts)<sup>1</sup>  
 HELENE ELEANORE DOTY, Bachelor of Arts (Liberal Arts)  
 DOROTHY LANNING DOTY, Bachelor of Arts (Liberal Arts)  
 EMILY MOTT DOWNING, Bachelor of Arts (Liberal Arts)<sup>1</sup>  
 CHUIN DU, Bachelor of Arts (Liberal Arts)  
 MARIE MILDRED DUBOIS, Bachelor of Arts (Liberal Arts)  
 VELMA BURDETTE DUMAS, Bachelor of Music<sup>2</sup>  
 FAE DUVAL, Bachelor of Science (Agriculture)  
 VERA ORIENTE EDDS, Bachelor of Arts (Liberal Arts)<sup>2</sup>

<sup>1</sup> Degree conferred October 16, 1918.

<sup>2</sup> Degree conferred February 16, 1918.

<sup>3</sup> With thesis.

- GAIL PHILLIPS EDWARDS, Bachelor of Science (Science)<sup>1</sup>  
 WILLIAM HIRSCHEL EICHHORN, Bachelor of Science (Agriculture)  
 \*EUGENE ROBERT ELESON, Bachelor of Arts (Liberal Arts)  
 FERDINAND ARTHUR ELL, Bachelor of Science (Electrical Engineering)  
 EARLIE EDGAR ELLIOTT, Bachelor of Science (Agriculture)  
 \*JACOB HOWARD EUSTON, Bachelor of Science (Electrical Engineering)  
 \*FRED EVANS, Bachelor of Science (Architectural Engineering)  
 CAROLINE VIRGINIA EWAN, Bachelor of Arts (Liberal Arts)  
 GEORGE EDWARD KIRCHNER FAGER, Bachelor of Science (Agriculture)<sup>1</sup>  
 FAITH JEANNETTE FAIRFIELD, Bachelor of Arts (Liberal Arts)  
 \*CHARLES FAIRMAN, Bachelor of Arts (Liberal Arts)  
 BERTHA LUCILLE FARNAM, Bachelor of Arts (Liberal Arts)  
 ALICE MAUD FERGUSON, Bachelor of Arts (Liberal Arts)  
 JAMES EDWARD FETHERSTON, Bachelor of Arts (Liberal Arts)  
 MARGARET ALICE FINLEY, Bachelor of Arts (Liberal Arts)  
 SOLOMON LEONARD FISHMAN, Bachelor of Science (Science)<sup>1</sup>  
 ANNETTE HOYT FLANDERS, Bachelor of Science (Agriculture)<sup>2</sup>  
 EDNA HELEN FLEXER, Bachelor of Arts (Liberal Arts)  
 MARGUERITE PAULINE FLOCK, Bachelor of Arts (Liberal Arts)  
 GRACE HAGGERTY FLOOD, Bachelor of Arts (Liberal Arts)<sup>2</sup>  
 AURHA MAYBELLE FLUKE, Bachelor of Arts (Liberal Arts)<sup>2</sup>  
 \*DOMINIC FORTY, Bachelor of Science (Mechanical Engineering)  
 FRANK WARD FOSTER, Bachelor of Science (Electrical Engineering)  
 \*RONALD EDWARD FOULKE, Bachelor of Science (Electrical Engineering)  
 LUCIA BYRNE FOX, Bachelor of Science (Agriculture)  
 ARTHUR LEWIS FRANCIS, Bachelor of Arts (Commerce)<sup>2</sup>  
 JOHN ZIMMERLY FRAZIER, Bachelor of Science (Agriculture)  
 VINA FREITAG, Bachelor of Science (Agriculture)  
 HOLLIS OLDFIELD FREY, Bachelor of Science (Mechanical Engineering)  
 ARTHUR HENRY FRICK, Bachelor of Science (Agriculture)<sup>2</sup>  
 \*THEODORE HENRY FRISON, Bachelor of Arts (Liberal Arts)<sup>1</sup>  
 ROLF HAROLD JOSEF GAARDER, Bachelor of Science (Commerce)  
 \*RALPH A GALE, Bachelor of Science (Agriculture)  
 AUGUSTA EMILIE GALSTER, Bachelor of Arts (Liberal Arts)  
 MCKINLEY GARDNER, Bachelor of Arts (Liberal Arts)  
 JESSE LEHMAN GARY, Bachelor of Science (Civil Engineering)  
 ROMAN DE LA GARZA, Bachelor of Science (Civil Engineering)  
 GAIL GAUNT, Bachelor of Arts (Liberal Arts)  
 \*LESTER CHARLES GEIGER, Bachelor of Arts (Commerce)  
 HAROLD EDGAR GEORGE, B.S., Bachelor of Science (Agriculture)  
 ROSCOE HARLAN GERKE, Bachelor of Science (Science)<sup>2</sup>  
 ALMA GERLACH, Bachelor of Arts (Liberal Arts)  
 PENCO HERGANOFF, Bachelor of Science (Mechanical Engineering)  
 JOHN HOWARD GILLEN, Bachelor of Science (Mechanical Engineering)  
 \*HAROLD RAYMOND GIRHARD, Bachelor of Arts (Liberal Arts)<sup>C</sup>  
 ETHEL FLORENCE GLIEFFE, Bachelor of Arts (Liberal Arts)<sup>2</sup>  
 WALTER ADOLPH GOELITZ, Bachelor of Science (Agriculture)  
 ERNA CLAIRE GOLDSCHMIDT, Bachelor of Arts (Liberal Arts)  
 MARK EDWARD GRAHAM, Bachelor of Science (Electrical Engineering)  
 JAMES MADISON GRAY, Bachelor of Arts (Commerce)  
 ESTHER CRANSTON GREEN, Bachelor of Arts (Liberal Arts)  
 \*JOEL WARING GREENE, Bachelor of Science (Agriculture)  
 STANWOOD JOHN GRIFFITH, Bachelor of Science (Agriculture)  
 \*EARL JEROME GRIMES, Bachelor of Science (Agriculture)<sup>2</sup><sup>C</sup>  
 \*ELMORE ALBERT GRIPP, Bachelor of Science (Commerce)  
 \*WALTER GRISEMER, Bachelor of Arts (Liberal Arts)  
 HELEN WIGHTMAN GROMMON, Bachelor of Arts (Liberal Arts)  
 NINA GROTEVANT, Bachelor of Arts (Liberal Arts)  
 \*ERNEST WILLIAM GUERNSEY, Bachelor of Science (Science)<sup>1</sup>  
 ORVILLE FRANCIS HAAS, Bachelor of Science (Railway Electrical Engineering)  
 SARA MAE HAGGERTY, Bachelor of Arts (Liberal Arts)  
 GRACE LOUISE HAHN, Bachelor of Science (Agriculture)  
 \*GEORGE STANLEY HALAS, Bachelor of Science (Civil Engineering)  
 EDWARD KNIGHT HALL, Bachelor of Science (Agriculture)  
 KARL WILLIAM HALL, Bachelor of Science (Mechanical Engineering)  
 LEONARD AYLES HAMMOND, Bachelor of Science (Agriculture)  
 \*HARLAN CARL HARBICHT, Bachelor of Science (Mining Engineering)  
 \*ROBERT BRUCE HARRIS, Bachelor of Science (Agriculture)  
 BENJAMIN SAMUEL HARRISON, Bachelor of Arts (Liberal Arts)<sup>2</sup>  
 ARCHIE HARRISON HART, Bachelor of Science (Agriculture)<sup>2</sup>  
 GODFREY HARTWELL, Bachelor of Science (Architectural Engineering)  
 EDWARD BEAN HAYES, Bachelor of Arts (Liberal Arts)<sup>1</sup>  
 \*WALTER ELLIOTT HAYNE, Bachelor of Science (Electrical Engineering)  
 MARTHA ELIZABETH HEDGCOCK, Bachelor of Arts (Liberal Arts)  
 MARTIN ANTON HEGSTED, Bachelor of Science (Architectural Engineering)  
 \*JOE BUNN HEIDLER, Bachelor of Arts (Liberal Arts)  
 ANNA HAZEL HENDERSON, Bachelor of Arts (Liberal Arts)  
 MARGARET EMILY HENSON, Bachelor of Science (Agriculture)  
 MARY HANNAH BROADBELT HICKS, Bachelor of Arts (Liberal Arts)  
 WENDELL PHILLIPS HILTBRAND, Bachelor of Science (Agriculture)  
 HERBERT STASSEN HINRICHS, Bachelor of Science (Agriculture)<sup>2</sup>

<sup>1</sup> With thesis.<sup>2</sup> Degree conferred February 16, 1918.<sup>3</sup> Degree conferred October 16, 1918.



- \*HERBERT WILLIAM HOEHNEKE, Bachelor of Science (Architectural Engineering)
- CARL MONTA HOGAN, Bachelor of Arts (Liberal Arts)
- KENNETH MARION HOLADAY, Bachelor of Science (Science)<sup>1</sup>
- \*OLIVER WENDELL HOLMES, Bachelor of Science (Agriculture)
- MYRTLE EVALINE HONEY, Bachelor of Science (Agriculture)
- LOUIS LEE HOREN, Bachelor of Arts (Liberal Arts)
- M ETHEL HORTON, Bachelor of Arts (Liberal Arts)
- DAVID HORWICH, Bachelor of Science (Architectural Engineering)
- WILLIAM BENTON HOSTETLER, Bachelor of Arts (Commerce)
- FLORA EMILY HOTTES, Bachelor of Arts (Liberal Arts)
- ROGER FAXON HOWE, Bachelor of Science (Agriculture)<sup>2</sup>
- MARY GEORGIA HOWELLS, Bachelor of Science (Agriculture)
- RUTH COUND HOWELLS, Bachelor of Arts (Liberal Arts)
- ARTHUR WESSELS HOWSON, Bachelor of Science (Civil Engineering)
- HAROLD NORTON HUNGERFORD, Bachelor of Science (Agriculture)
- ALICE LILLIAN HUNSLEY, Bachelor of Arts (Liberal Arts)
- MARGARET HUNTER, Bachelor of Arts (Liberal Arts)
- \*ALFRED HENRY INGWERS, Bachelor of Science (Architecture)
- DOROTHY JOSEPHINE IWIG, Bachelor of Science (Agriculture)
- THOMAS HENRY JACKSON, Bachelor of Science (Agriculture)<sup>2</sup>
- \*HERBERT JACOB JACOBI, Bachelor of Science (Architecture)
- \*HENRY GEORGE MARTIN JACOBSON, Bachelor of Science (Agriculture)
- \*WENTWORTH CORY JACQUIN, Bachelor of Arts (Liberal Arts)
- HELEN IDA JAMES, Bachelor of Arts (Liberal Arts)<sup>2</sup>
- ELMER THEODORE JANSSEN, Bachelor of Science (Commerce)
- EDWARD ARTHUR JEUDE, Bachelor of Science (Science)<sup>1</sup>
- EVELYN GORDON JOHNS, Bachelor of Arts (Liberal Arts)
- FLOYD HENNING JOHNSON, Bachelor of Arts (Commerce)
- LILLIAN RUTH JOHNSTON, Bachelor of Arts (Liberal Arts)
- \*EARL JESSE JONES, Bachelor of Arts (Commerce)
- MACK MARQUIS JONES, Bachelor of Science (Electrical Engineering)
- \*WARREN PAUL JONES, Bachelor of Science (Agriculture)
- ELIZABETH GLADYS JUDD, Bachelor of Arts (Liberal Arts)
- JOSEPH JOHN KALVODA, Bachelor of Science (Mechanical Engineering)
- \*CLARENCE SAMUEL KAYSER, Bachelor of Science (Architectural Engineering)
- EMMA GENEVIEVE KEITH, Bachelor of Arts (Liberal Arts)
- EDITH MAURINE KELLEY, Bachelor of Arts (Liberal Arts)
- IVA KELLEY, Bachelor of Arts (Liberal Arts)
- HENRY ELI KELLY, Bachelor of Science (Civil Engineering)
- JOHN THOMAS KELLY, Bachelor of Science (Mechanical Engineering)
- FRANK SHERMAN KIMBALL, Bachelor of Science (Science)<sup>2</sup>
- \*WALTER RAYMOND KIRNER, Bachelor of Science (Science)<sup>1</sup>
- JOHN LEO KLEIN, Bachelor of Arts (Commerce)
- \*ARTHUR BRICK KLEMMEDSON, Bachelor of Science (Agriculture)
- GUNNAR SIGESMUND KLEMMEDSON, Bachelor of Science (Agriculture)
- ARTHUR LAVERNE KLINE, Bachelor of Science (Agriculture)
- WILLIAM LEO KLINK, Bachelor of Arts (Commerce)<sup>1</sup>
- BESSIE MAY KLOTSCHKE, Bachelor of Arts (Liberal Arts)
- \*JOHN MEREDITH KNAPPENBERGER, Bachelor of Science (Commerce)
- MARY JANE KNEESHAW, Bachelor of Science (Agriculture)
- EWART BROUGHTON KNIGHT, Bachelor of Science (Agriculture)
- \*GLENN KOEHLER, Bachelor of Science (Electrical Engineering)
- ROWENA AGNES KOHL, Bachelor of Arts (Liberal Arts)
- MERLE ARTHUR KOLB, Bachelor of Science (Mechanical Engineering)
- \*REYNOLD RUDOLPH KRAFT, Bachelor of Science (Mining Engineering)
- NORMAN WILLIAM KRASE, Bachelor of Science (Science)<sup>1</sup>
- PHILIP LEONE KRAUEL, Bachelor of Science (Mechanical Engineering)
- \*CHESTER JAMISON KRRIDLER, Bachelor of Science (Commerce)
- CHARLES KRUPAR, Bachelor of Arts (Liberal Arts)<sup>1</sup>
- \*ARTHUR DETLEF HENRY LADEHOFF, Bachelor of Science (Civil Engineering)
- \*JOHN LAMB, JR., Bachelor of Science (Agriculture)
- GREGORY VASSILEFF LAMBROFF, Bachelor of Science (Electrical Engineering)
- ALLEN H LANCASTER, Bachelor of Science (Agriculture)<sup>2</sup>
- GEORGE LANDON, Bachelor of Arts (Liberal Arts)<sup>2</sup>
- CARL CLARENCE LARSON, Bachelor of Science (Science)<sup>1</sup>
- ANGIE LA TEER, Bachelor of Arts (Liberal Arts)
- \*FREDERICK HOULTON LAUDER, Bachelor of Arts (Liberal Arts)
- TSE LAUPHIT, Bachelor of Science (Agriculture)
- MARION MARIE LAURITZEN, Bachelor of Arts (Liberal Arts)
- CHARLES HENRY LAWRENCE, Bachelor of Science (Agriculture)
- PING-FUN LEE, Bachelor of Science (Mechanical Engineering)
- TAO NAN LEE, Bachelor of Arts (Commerce)<sup>1</sup>
- FRED WILLIAM LEGGITT, Bachelor of Science (Agriculture)<sup>1</sup>
- RUTH TOWNSEND LEHMAN, Bachelor of Arts (Liberal Arts)
- \*CLAUDE LEIST, Bachelor of Arts (Liberal Arts)
- ELIZABETH LEITZBACH, Bachelor of Arts (Liberal Arts)
- HAMLET HARRISON LETT, Bachelor of Science (Agriculture)
- ANITA LIBMAN, Bachelor of Arts (Liberal Arts)
- RUTH EVALINE LIEBER, Bachelor of Arts (Liberal Arts)<sup>1</sup>
- \*GEORGE LEONARD LINDBERG, Bachelor of Science (Architecture)

<sup>1</sup> With thesis.<sup>2</sup> Degree conferred October 16, 1913.<sup>3</sup> Degree conferred February 16, 1918.

- NAI YU LIU, Bachelor of Arts (Commerce)  
 HAZEL IRENE LLEWELLYN, Bachelor of Arts (Liberal Arts)  
 ISABEL KATHRYN LOCKWOOD, Bachelor of Arts (Liberal Arts)  
 PING KWAN LONG, Bachelor of Science (Agriculture)  
 RUTH IDA LONG, Bachelor of Arts (Liberal Arts)  
 JULIAN LAWRENCE LOONEY, Bachelor of Science (Mechanical Engineering)  
 BERYL FRANKLIN LOVE, Bachelor of Arts (Liberal Arts)  
 CYRUS CHING-CHUNG LOWE, Bachelor of Science (Commerce)  
 HELEN LUDLOW, Bachelor of Arts (Liberal Arts)  
 \* PLOYD EDWARD LUNDGREN, Bachelor of Science (Electrical Engineering)  
 MARY AGNES ADELAIDE LYMAN, Bachelor of Arts (Liberal Arts)  
 MARGARET LYNCH, Bachelor of Arts (Liberal Arts)  
 \* OSCAR IVAN LYONS, Bachelor of Science (Mechanical Engineering)  
 MARTHA MCCAMMON, Bachelor of Arts (Liberal Arts)  
 ADELLE ELIZABETH MCCLURE, Bachelor of Music<sup>1</sup>  
 \* MARVIN GREER MCCONNELL, Bachelor of Arts (Liberal Arts)  
 VASHTI MCCREARY, Bachelor of Arts (Liberal Arts)<sup>2</sup>  
 MARY ELIZABETH MCCULLOUGH, Bachelor of Arts (Liberal Arts)  
 GEORGIA HELEN McDONALD, Bachelor of Arts (Liberal Arts)  
 RUTH MCELHINEY, Bachelor of Arts (Liberal Arts)  
 \* MALCOLM EDWARDS MACGILLIVRAY, Bachelor of Arts (Liberal Arts)  
 HELEN ANASTASIA MCGINNIS, Bachelor of Arts (Liberal Arts)<sup>1</sup>  
 WILSON THOMAS MCGRATH, Bachelor of Science (Agriculture)<sup>2</sup>  
 \* JOHN LANCASTER MCGREGOR, Bachelor of Science (Mechanical Engineering)  
 ALEXANDER MCKAY, Bachelor of Science (Mechanical Engineering)  
 MARY ANNETTE MCKEE, Bachelor of Arts (Liberal Arts)  
 ROBERT EMMETT MCKEEVER, Bachelor of Science (Electrical Engineering)  
 \* EDWARD BROWN MCLEE, Bachelor of Science (Architectural Engineering)  
 BERNICE BOWER MCNAIR, Bachelor of Arts (Liberal Arts)  
 MARIE LINDSEY MCWILLIAMS, Bachelor of Music<sup>1</sup>  
 \* EDWARD PAUL MACHOVEC, Bachelor of Science (Railway Mechanical Engineering)  
 \* PAUL JAMES MACKIN, Bachelor of Science (Civil Engineering)  
 \* LAWRENCE CHESTER MADISON, Bachelor of Science (Agriculture)  
 CLYDE MAKUTCHAN, Bachelor of Science (Civil Engineering)  
 RICHARD HENDERSON MALLORY, Bachelor of Science (Agriculture)  
 GRACE ESTELLA MALSARY, Bachelor of Arts (Liberal Arts)  
 MYRA FRANCES MANLEY, Bachelor of Arts (Liberal Arts)  
 THEODORE BERGEN MANNY, Bachelor of Science (Agriculture)<sup>3</sup>  
 MAUDE IRENE MARKS, Bachelor of Arts (Liberal Arts)  
 EDMUND ANTHONY MARTELL, Bachelor of Science (Railway Electrical Engineering)  
 MARGARET LOUISE MARTENS, Bachelor of Arts (Liberal Arts)  
 FRANK ALBERT MARTIN, Bachelor of Science (Science)<sup>1</sup>  
 \* ALBERT OTTO MATTHEWS, Bachelor of Science (Science)<sup>1</sup>  
 GEORGE HAJIME MATOBA, Bachelor of Science (Mining Engineering)  
 VERONICA CATHERINE MATUSZEWICZ, Bachelor of Arts (Liberal Arts)  
 ERWIN WILLIAM MAUTNER, Bachelor of Science (Science)<sup>1</sup>  
 \* RAYMOND JONES MAXWELL, Bachelor of Arts (Commerce)  
 THOMAS BOLTON MAYO, Bachelor of Arts (Liberal Arts)<sup>1</sup>  
 HENRIETTA MEDLAR, Bachelor of Arts (Liberal Arts)<sup>2</sup>  
 HAROLD TECUMSEH MEEK, Bachelor of Arts (Liberal Arts)  
 \* CHARLES FRANKLIN MERCER, Bachelor of Science (Civil Engineering)  
 \* RALPH DILWORTH MERCER, Bachelor of Science (Agriculture)  
 ALFRED WERNER MEYER, Bachelor of Science (Science)<sup>1</sup>  
 ANTOINE FERDINAND ERNST HENRY MEYER, Bachelor of Arts (Liberal Arts)<sup>1</sup>  
 JANNETT LOU MEWHIRTER, Bachelor of Science (Agriculture)  
 JULIAN GILBERT MIDDLETON, Bachelor of Science (Architectural Engineering)  
 EVELYN ADA MILES, Bachelor of Arts (Liberal Arts)  
 ARCHIE ROSCOE MILLER, Bachelor of Science (Electrical Engineering)  
 \* DEAN ALBERT MILLER, Bachelor of Science (Civil Engineering)  
 WALTER PORTER MILLER, Bachelor of Science (Agriculture)  
 DWIGHT L. MINK, Bachelor of Arts (Commerce)  
 DONALD RICHARDS MITCHELL, Bachelor of Science (Agriculture)  
 \* LEONARD OSGOOD MITCHELL, Bachelor of Science (Agriculture)  
 EDWIN STUART MOBERLEY, Bachelor of Science (Agriculture)  
 \* JAMES WEIR MONCRIEFF, Bachelor of Science (Ceramic Engineering)  
 ILA E. MONOHON, Bachelor of Arts (Liberal Arts)  
 \* ALLEN RAY MOORE, Bachelor of Arts (Liberal Arts)  
 SARA ELIZABETH MOORE, Bachelor of Arts (Liberal Arts)  
 WAYNE KENNETH MOORE, Bachelor of Science (Agriculture)  
 HANYEMON MORITA, Bachelor of Arts (Commerce)  
 ALIDA HELEN MOSS, Bachelor of Arts (Liberal Arts)  
 \* RICHARD ADAM MUESSEL, Bachelor of Science (Agriculture)  
 MARTIN REUBEN MUNDORF, Bachelor of Arts (Liberal Arts)  
 GERALD EDSON MURRAY, Bachelor of Science (Commerce)  
 GLADYS LEORA NADEN, Bachelor of Arts (Liberal Arts)  
 SHIMAJI NAKANISHI, Bachelor of Science (Electrical Engineering)<sup>1</sup>  
 CATHERINE NEEDHAM, Bachelor of Arts (Liberal Arts)<sup>1</sup>  
 JAMES NEEDHAM, Bachelor of Science (Mining Engineering) (as of the Class of 1893)  
 HAROLD ALPHA NEFF, Bachelor of Arts (Liberal Arts)<sup>1</sup>  
 SEVERINA ELAINE NELSON, Bachelor of Arts (Liberal Arts)

<sup>1</sup> With thesis.<sup>2</sup> Degree conferred February 16, 1918.<sup>3</sup> Degree conferred October 16, 1918.

- IVA FLORENCE NEWBURN, Bachelor of Arts (Liberal Arts)  
 WALTER HAINES NEWCOMB, Bachelor of Science (Science)<sup>1</sup>  
 \*WALTER ALLEN NEWLIN, Bachelor of Science (Agriculture)  
 \*ROBERT KEITH NEWTON, Bachelor of Science (Electrical Engineering)  
 JOHN TIMOTHY NOLAN, Bachelor of Science (Civil Engineering)  
 ELLA BAXTER OAKES, Bachelor of Science (Agriculture)  
 LAURA ODELL, Bachelor of Arts (Liberal Arts)<sup>2</sup>  
 RUTH INGBORG OHRMAN, Bachelor of Arts (Liberal Arts)  
 \*DWIGHT BROADNAX OHRUM, Bachelor of Science (Railway Civil Engineering)  
 HAROLD LOEFFEL OLESEN, Bachelor of Science (Electrical Engineering)  
 ROBERT GEORGE OLSON, Bachelor of Science (Mechanical Engineering)  
 MABEL THELMA OSBURN, Bachelor of Science (Agriculture)  
 \*HAROLD PATTERSON OWEN, Bachelor of Science (Railway Civil Engineering)  
 MARY PACK, Bachelor of Arts (Liberal Arts)  
 \*ALFRED ROBERT PASTEL, Bachelor of Science (Architecture)<sup>C</sup>  
 BERENICE MARIE PAUL, Bachelor of Arts (Liberal Arts)<sup>2</sup>  
 MARGARET PEALE, Bachelor of Arts (Liberal Arts)  
 FRANCIS H PEARSON, Bachelor of Science (Mechanical Engineering)  
 \*WILLIS MCGERALD PEIRCE, Bachelor of Science (Science)<sup>1</sup>  
 MARY LUCILE PEARSON, Bachelor of Arts (Liberal Arts)  
 HAZEL MARIE PELL, Bachelor of Arts (Liberal Arts)  
 \*LAMBERT BENJAMIN PENHALLOW, Bachelor of Science (Mechanical Engineering)  
 LILLEY RUTH PERCIVAL, Bachelor of Science (Agriculture)  
 FRANCES JANET PERKINS, Bachelor of Arts (Liberal Arts)  
 \*SILAS CARLISLE PETERSON, Bachelor of Science (Agriculture)  
 BERNICE IRENE PHILLIPS, Bachelor of Arts (Liberal Arts)  
 RUTH PHILLIPS, Bachelor of Arts (Liberal Arts)  
 BETHA PLYMALE, Bachelor of Arts (Liberal Arts)  
 EDWARD CHARLES POHLMANN, Bachelor of Science (Mechanical Engineering)  
 \*WESLEY WILLIAM POLK, Bachelor of Science (Municipal and Sanitary Engineering)  
 MARGARET LOIS PORTER, Bachelor of Arts (Liberal Arts)  
 \*KEELER DE WITT PULCIPHER, Bachelor of Arts (Commerce)  
 WILLIAM FRANK PURNELL, Bachelor of Science (Agriculture)<sup>3</sup>  
 FLORENCE KATHERINE QUINN, Bachelor of Music<sup>1</sup>  
 \*CLEMENT JOSEPH RAFINSKI, Bachelor of Science (Commerce)  
 \*LESTER ADDISON RAHN, Bachelor of Science (Agriculture)  
 \*RUDOLPH RAHN, Bachelor of Science (Mechanical Engineering)  
 LESTER COURTNEY RAINES, Bachelor of Arts (Liberal Arts)  
 KATHRYN ROSE RAITHEL, Bachelor of Arts (Liberal Arts)  
 CHARLES EDWARD RANDA, Bachelor of Science (Electrical Engineering)  
 \*FRANK JOHN RANDALL, Bachelor of Science (Agriculture)  
 LURO JANE RANKIN, Bachelor of Arts (Liberal Arts)  
 \*HUBERT HONENS RATHBUN, Bachelor of Science (Agriculture)  
 EMMA GRACE READER, Bachelor of Arts (Liberal Arts)  
 CORDELIA REED, Bachelor of Arts (Liberal Arts)  
 GEORGE HOSTER REID, Bachelor of Science (Agriculture)  
 \*HAROLD SPEER REID, Bachelor of Science (Agriculture)  
 \*BERNHARD PAUL REINSCH, Bachelor of Arts (Liberal Arts)  
 MARIE CORZINE RHODES, Bachelor of Arts (Liberal Arts)  
 \*PERRY MARION RHUE, Bachelor of Arts (Commerce)  
 KATHERINE GRACE RICE, Bachelor of Arts (Liberal Arts)<sup>1</sup>  
 OLIVE AREY RICHARDS, Bachelor of Science (Agriculture)  
 BLANCHE BELLE RICHART, Bachelor of Arts (Liberal Arts)  
 JEAN ELMORA RICHMOND, Bachelor of Arts (Liberal Arts)  
 GERTRUDE KATHERINE RICHTER, Bachelor of Science (Commerce)  
 RUTH ANNA RIPPLE, Bachelor of Arts (Liberal Arts)  
 WALTER SCOTT RISSE, Bachelor of Science (Electrical Engineering)  
 \*WALTER THEOBALD RITTER, Bachelor of Science (Mechanical Engineering)  
 \*CLAUDE MORRILL ROBERTS, Bachelor of Arts (Commerce)  
 ARTHUR BECKMAN ROBERTSON, Bachelor of Science (Agriculture)  
 ETHELYN CLYDE ROBINSON, Bachelor of Arts (Liberal Arts)  
 ANTONIO RODRIGUEZ, Bachelor of Science (Civil Engineering)  
 EDAR BERTRAM ROE, Bachelor of Science (Agriculture)  
 NEWMAN ROMERO, Bachelor of Arts (Liberal Arts)<sup>3</sup>  
 RUTH EDITH ROMPEL, Bachelor of Arts (Liberal Arts)  
 ETHEL MAYE ROSE, Bachelor of Arts (Liberal Arts)  
 HERBERT BERNARD ROSENBERG, Bachelor of Science (Agriculture)  
 NELDA GLENDORA ROSS, Bachelor of Science (Agriculture)  
 FLORENCE CATHERINE ROTH, Bachelor of Arts (Liberal Arts)  
 RACHEL RUFFNER, Bachelor of Science (Agriculture)  
 ELMER THEODORE RUNDQUIST, Bachelor of Science (Agriculture)<sup>3</sup>  
 HORACE ALONZO LEWIS RYDER, Bachelor of Science (Electrical Engineering)  
 FRANK SAILER, Bachelor of Science (Agriculture)  
 THERESA MINNA SAMUELS, Bachelor of Arts (Liberal Arts)  
 FRANCELIA PLUMLY SARGENT, Bachelor of Arts (Commerce)  
 KENOSKE SATO, Bachelor of Arts (Liberal Arts)<sup>1</sup>  
 GERTRUDE ELIZABETH SAWYER, Bachelor of Science (Agriculture)  
 WILHELMINA SCHEFFER, Bachelor of Arts (Liberal Arts)  
 ARTHUR KRISSLER SCHIFFLIN, Bachelor of Science (Mechanical Engineering)  
 LOUIS HENRY SCHREIBER, Bachelor of Science (Agriculture)

<sup>1</sup> With thesis.<sup>2</sup> Degree conferred October 16, 1918.<sup>3</sup> Degree conferred February 16, 1918.

- \*FRANK J. SCHULTZ, Bachelor of Arts (Commerce)
- ELLA SCHWAGMEYER, Bachelor of Arts (Liberal Arts)
- TRUMAN GORTON SEARLE, Bachelor of Arts (Liberal Arts)
- HARRY RICHMOND SEAVEY, Bachelor of Science (Electrical Engineering)
- LOUIS JACOB SELZER, Bachelor of Science (Architecture)
- ERNA SEILER, Bachelor of Arts (Liberal Arts)<sup>1</sup>
- HELEN CATHARINE SHAW, Bachelor of Arts (Liberal Arts)
- \*ROBERT PHINEAS SHEAFF, Bachelor of Science (Agriculture)
- GERTRUDE ELIZABETH SHEERER, Bachelor of Arts (Liberal Arts)<sup>1</sup>
- WILLIAM HEBBER SHEFFER, Bachelor of Science (Agriculture)
- \*NELSON EDWARD SHELTON, Bachelor of Science (Architectural Engineering)
- CHI TING SHING, Bachelor of Science (Railway Civil Engineering)
- \*FRANCIS LUCIAN SHONKWILER, Bachelor of Science (Mechanical Engineering)
- HELEN ELIZABETH SHRIVER, Bachelor of Science (Agriculture)<sup>2</sup>
- \*LAURENCE EDGAR SHUP, Bachelor of Arts (Liberal Arts)
- FRANK SPAIN SHY, Bachelor of Science (Commerce)
- \*DAMON CARL SIEGRIST, Bachelor of Science (Agriculture)
- RAYMOND ERWIN SIFF, Bachelor of Science (Agriculture)
- \*WILLIAM SILAS SLACK, Bachelor of Science (Electrical Engineering)
- KATHERINE CLAIRE SLADE, Bachelor of Arts (Liberal Arts)
- ROBERT BOHUMIL SLADEK, Bachelor of Science (Agriculture)
- WILLIS FRANCIS SLAYTON, Bachelor of Science (Agriculture)<sup>2</sup>
- GLENN COLLINS SMITH, Bachelor of Science (Agriculture)
- LEONIDAS LOGAN SMITH, Bachelor of Science (Architecture)
- MARY PARNELL SMITH, Bachelor of Science (Agriculture)
- VALDA EVELINE SMITH, Bachelor of Arts (Liberal Arts)
- \*CLARENCE EASTLAKE SNELL, Bachelor of Arts (Commerce)
- HARRY STIRLING SNELL, Bachelor of Science (Science)<sup>2</sup>
- HAROLD HAYNES SORTWELL, Bachelor of Science (Ceramic Engineering)
- JERRY SOTOLA, Bachelor of Science (Agriculture)
- \*CHARLES FOSKEY SPANGLER, Bachelor of Science (Commerce)
- HELEN EUDORA SPEAR, Bachelor of Arts (Liberal Arts)
- \*RALPH EDWARD SPERRY, Bachelor of Arts (Commerce)
- \*NORMAN ELLSWORTH SPRAGUE, Bachelor of Science (Civil Engineering)
- ROBERT WATTS STARK, B.S., Bachelor of Science (Agriculture)
- BERTHA MARIE STEIN, Bachelor of Arts (Liberal Arts)
- \*EDWARD HIEL STEVENSON, Bachelor of Science (Agriculture)
- CLARA MARIE STIEGENMEYER, Bachelor of Arts (Liberal Arts)<sup>1</sup>
- ETHEL STIFF, Bachelor of Arts (Liberal Arts)
- GENNIEVE MAUDE STILLWELL, Bachelor of Science (Agriculture)
- HELEN STILLWELL, Bachelor of Arts (Liberal Arts)
- BENJAMIN ANDREW STIRITZ, Bachelor of Science (Agriculture)
- BENJAMIN FRANKLIN STOLTEY, Bachelor of Arts (Liberal Arts)
- ETHEL LYNETTE STOLTEY, Bachelor of Arts (Liberal Arts)
- ESTHER SUSIE STORER, Bachelor of Arts (Liberal Arts)
- ERNEST LAWRENCE STOUFFER, Bachelor of Science (Architecture)
- \*ERNEST JOSEPH STRAUB, Bachelor of Science (Civil Engineering)
- WALTER FRED STRAUB, Bachelor of Science (Science)<sup>1</sup>
- \*JESSE WOODFORD STRONG, Bachelor of Arts (Commerce)
- \*EDGAR ALBERT STUBENRAUCH, Bachelor of Science (Architecture)
- ALDEN HARWOOD SULGER, Bachelor of Science (Agriculture)
- ELSIE MABEL SUPPES, Bachelor of Arts (Liberal Arts)
- EDMUND DE FOREST SWANBERG, Bachelor of Science (Electrical Engineering)
- \*MARION GOERZ SWANBERG, Bachelor of Arts (Liberal Arts)
- GERTRUDE LUCILE SWIFT, Bachelor of Arts (Liberal Arts)
- BLANCHÉ BELLE SWIGERT, Bachelor of Arts (Liberal Arts)<sup>2</sup>
- GRACE DARLING SYLVESTER, Bachelor of Arts (Liberal Arts)
- RACHEL HARRIET TALBOT, Bachelor of Arts (Liberal Arts)
- \*CHARLES BAGWELL TAYLOR, Bachelor of Science (Civil Engineering)
- LAURENCE RICHTER TAYLOR, Bachelor of Science (Science)<sup>1</sup>
- \*NORRIS ONSLOW TAYLOR, Bachelor of Science (Science)<sup>1</sup>
- FREDERICK ROBERT THATCHER, Bachelor of Science (Commerce)
- LILLIAN EUPHEMIA THOMSON, Bachelor of Arts (Liberal Arts)
- ZADA GOFF THORNSBURGH, Bachelor of Arts (Liberal Arts)
- \*BERT MARSHALL THORUD, Bachelor of Science (Architectural Engineering)
- \*JOSEPH DOW TIFFIN, Bachelor of Science (Agriculture)
- \*OTTO GEORGE TINKEY, Bachelor of Science (Electrical Engineering)
- \*GLEN DEACH TOMBAUGH, Bachelor of Science (Agriculture)
- ELINOR EVANGELINE TRAXLER, Bachelor of Arts (Commerce)
- \*SIDNEY BRIGGS TRELEASE, Bachelor of Arts (Commerce)
- WILMA LOIS TRENCHARD, Bachelor of Arts (Liberal Arts)
- \*MARION COLLIER TROSTER, Bachelor of Arts (Commerce)
- \*ROWLAND HENRY TUCKER, Bachelor of Science (Agriculture)
- \*HAROLD BRADFORD TUKEY, Bachelor of Science (Agriculture)
- \*HAROLD EDWIN TURLEY, Bachelor of Science (Agriculture)<sup>C</sup>
- \*LUTHER MARTIN TURNER, Bachelor of Science (Electrical Engineering)
- ELMER NELS TURNQUIST, Bachelor of Arts (Liberal Arts)<sup>1</sup>
- WILLIAM PHILIP UDINSKY, Bachelor of Science (Science)<sup>1</sup>
- FRANK WAYNE VALENTINE, Bachelor of Science (Science)<sup>1</sup>
- MAURICE VERONDA, Bachelor of Arts (Liberal Arts)<sup>1</sup>

<sup>1</sup> Degree conferred October 16, 1918.<sup>2</sup> Degree conferred February 16, 1918.<sup>C</sup> With thesis.

- \*HAROLD CRAIGMILE VIAL, Bachelor of Science (Agriculture)
- \*NATHANIEL SMITH VIAL, Bachelor of Science (Agriculture)
- ELMER BENNETT VLIET, Bachelor of Science (Science)<sup>1</sup>
- ALFRED CHARLES VOGELE, Bachelor of Science (Agriculture)
- \*JOSEPH FRANCIS VOPAT, Bachelor of Science (Civil Engineering)
- ESTHER ANGELICA WAGNER, Bachelor of Arts (Liberal Arts)
- ROBERTA JENNIE WAGNER, Bachelor of Arts (Liberal Arts)
- \*CHARLES DUDLEY WAGSTAFF, Bachelor of Science (Agriculture)
- \*FRID RAYMOND WAKELAND, Bachelor of Science (Agriculture)
- HELEN WALKER, Bachelor of Arts (Liberal Arts)
- STANTON EUGENE WALWORTH, Bachelor of Science (Agriculture)
- ADALAIDE MAY WAMSLEY, Bachelor of Science (Agriculture)
- CECILIA BLAIR WARD, Bachelor of Arts (Liberal Arts)
- JANET WARD, Bachelor of Arts (Liberal Arts)
- MARY MYRTLE WARD, Bachelor of Arts (Liberal Arts)
- MARY WINIFRED WARD, Bachelor of Arts (Liberal Arts)
- ANNA MAY WARREN, Bachelor of Arts (Liberal Arts)
- RUSSELL A WATT, Bachelor of Science (Architectural Engineering)
- \*LESLIE BRYAN WEDGE, Bachelor of Arts (Commerce)
- AMY AZALEA WEIR, Bachelor of Arts (Liberal Arts)<sup>2</sup>
- PEARL WEIR, Bachelor of Science (Agriculture)
- KATHRYN CLARE WELSH, Bachelor of Arts (Liberal Arts)
- CAROLYN LOUISE WENZ, Bachelor of Arts (Liberal Arts)
- MARION ISABEL WEST, Bachelor of Science (Agriculture)
- LEROY JOHN WESTENHAVER, Bachelor of Science (Mining Engineering)
- \*OREN LESLIE WHALIN, Bachelor of Science (Agriculture)
- ELIZABETH LUX WHEELHOUSE, Bachelor of Arts (Liberal Arts)
- RUSSELL SHERMAN WHITE, Bachelor of Arts (Commerce)
- WINIFRED ELIZABETH WHITE, Bachelor of Arts (Liberal Arts)
- MERLYN RULOFFE WHITNEY, Bachelor of Science (Commerce)
- MABEL DORRIS WHITTEN, Bachelor of Arts (Liberal Arts)
- HOWARD CLIFFORD WHITVER, Bachelor of Arts (Commerce)
- JULIUS HARRY WIEN, Bachelor of Science (Electrical Engineering)
- RUTH ISABELLE WIKOFF, Bachelor of Arts (Liberal Arts)
- EDGAR JAMES WILEY, Bachelor of Letters (*as of the Class of 1873*)
- JESSE ERNEST WILKINS, Bachelor of Arts (Liberal Arts)<sup>3</sup>
- \*GEORGE ALFRED WILLIAMS, Bachelor of Arts (Liberal Arts)
- GRACE ETHEL WILLIAMS, Bachelor of Arts (Liberal Arts)
- HELEN JACKSON WILLIAMS, Bachelor of Arts (Liberal Arts)<sup>3</sup>
- IRENE WILLIAMS, Bachelor of Arts (Liberal Arts)<sup>2</sup>
- \*WARD MAURICE WILLITS, Bachelor of Arts (Commerce)
- WINIFRED WILSON, Bachelor of Arts (Liberal Arts)<sup>4</sup>
- MARY ALAMEDA WINSHIP, Bachelor of Arts (Liberal Arts)
- \*LAWRENCE MORSE WINTERS, Bachelor of Arts (Commerce)
- HELEN ELIZABETH WITBECK, Bachelor of Arts (Liberal Arts)
- LILLIAN HONENS WOERMAN, Bachelor of Arts (Liberal Arts)
- \*WILBUR TOWNSEND WOLEBEN, Bachelor of Science (Agriculture)
- ALINE JEANNETTE WOLFF, Bachelor of Arts (Liberal Arts)
- HERBERT FREDERICK WOLTER, Bachelor of Science (Agriculture)
- MARVIN YIK HSEN WONG, Bachelor of Science (Commerce)
- RAYMOND BURNS WOODROW, Bachelor of Science (Agriculture)<sup>1</sup>
- FRANCES OCTAVIA WOODS, Bachelor of Arts (Liberal Arts)
- LENNA ADAIR BERYL WOODS, Bachelor of Arts (Liberal Arts)
- HENRY HAROLD WORNER, Bachelor of Science (Agriculture)
- MILDRED WINIFRED WRIGHT, Bachelor of Science (Agriculture)
- NORMAN WILLIAM WROBY, Bachelor of Science (Science)<sup>2</sup>
- OTILLIA EMMA YACKEY, Bachelor of Arts (Liberal Arts)
- EDGAR GABRIEL YAEGER, Bachelor of Arts (Liberal Arts)<sup>2</sup>
- YASUZO YAMADA, Bachelor of Science (Civil Engineering)
- \*LELAND EDWARD YEAGER, Bachelor of Arts (Liberal Arts)
- \*JOHN GEORGE YBRINGTON, Bachelor of Science (Agriculture)
- \*MERLE ALBERT YOCKEY, Bachelor of Arts (Commerce)
- GEORGE ANDREW ZEHR, Bachelor of Science (Electrical Engineering)
- LAWRENCE WILLARD ZELLER, Bachelor of Arts (Commerce)

## THE COLLEGE OF LAW

### The Degree of Bachelor of Laws

GEORGE ALBERT CAMPBELL  
 \*FRITZ HARRIS FISK  
 VICTOR HUBERT GROSSBERG<sup>1</sup>

HOWARD DICKENS KINER  
 \*WILLIAM ABNER MOORE, A.B., 1916

<sup>1</sup> Degree conferred February 16, 1918.

<sup>2</sup> Degree conferred October 16, 1918.

<sup>3</sup> With thesis.

## THE LIBRARY SCHOOL

## The Degree of Bachelor of Library Science

MARY GRACE BARNES, B.S. (*Purdue University*)  
1804  
ANNE MORRIS BOYD, A.B. (*James Millikin University*) 1906  
VIVIAN BERALDINE COLGROVE<sup>1</sup>  
EDITH ELIZABETH HAGUE, A.B. (*Kansas University*)  
1910  
ELIZABETH HENRY, Ph.B. (*University of Chicago*)  
1900  
FRANCES GRACE KLANK, A.B., 1916

ETHEL GYOLA KRATZ, A.B., 1910  
ANGELINE MCNEILL, A.B. (*Lake Forest College*)  
1916  
WILMA LOY SHELTON, A.B., 1914  
ROBINSON SPENCER, A.B. (*Wesleyan University*)  
1903  
SALLIE MCCORMICK VAUGHT, A.B. (*Ohio Wesleyan University*) 1908  
OLGA LOUISE WALLER, A.B. (*Smith College*) 1914

## THE COLLEGE OF MEDICINE

## The Degree of Bachelor of Science

(Conferred June 8, 1918, in Chicago)

GEORGE ALBERT ALLEN  
ANDREW SAMUEL ARNQUIST  
REA ERNEST ASHLEY  
EDGAR THERON BLAIR  
LADISLAV V CAPEK  
PAUL STERLING CARLEY  
HOWARD WILLIAM CHAMPLIN, A.B.  
GERALD MORRIS CLINE  
CARL COHEN  
MAURICE HIAM COTTLE  
JOHN WILLIAM CRADDOCK  
WOODRUFF LYNDEN CRAWFORD  
CHARLES MARSHALL DAVISON  
HAROLD FRANCIS DILLER  
LAWRENCE FRANCIS DRAPER  
ROBERT EDWARD DYER  
MAXIMILIAN CHARLES EHRLICH<sup>2</sup>  
EDWIN ROY EISLER  
MAX ELIHU ENGERMAN  
WALTER RATHFON FISCHER  
HANBY LEWIS FORD  
CARSON KING GABRIEL  
GERALD DELAND GERKON  
LOUIS GOLDBLATT  
EDWARD PHILLIP GRAMER  
LOUIS PETER GROOS  
MARSHAL DANIEL HAYES  
HENRY FREDERICK HELLER  
EMRY G HYATT  
GEORGE BURGESS IRWINE  
JOSEPH JELINEK  
JOHN WALTER JOHNSON  
KARL JOHN KAISER  
ETHEL LEONA KECKLER, A.B.

EVERETT RAYMOND LAMBERTSON  
JOSEPH LA ROCCA  
RUTH LEONARD, A.B.  
JOHN LUTTER  
RAYMOND ADAM McDERMOTT  
CHARLES LEO MERRILL  
GEORGE STANLEY METCALF  
MYRON HERBERT MILLER  
OSWELL EUAN MORIN  
WILLIAM JAMES NOONAN  
ALBERT ERIC OLSON  
DAVID ELMER OSTLER  
HARRY ARTHUR PASKIND  
NORBERT PAUKER  
JOE OLIVER PETERSON  
ANDREW PETRASS  
FRED PICKOFF  
FRANKLIN LEROY RUBRIGHT  
JOSEPH SPONDER  
FREDERICK HOMER STARRETT  
JACOB H STILLERMAN  
THEODORE THADDEUS STONE  
WILLIAM BENJAMIN STROMBERG  
JAMES WALTER STUBBS  
HARRY ARTHUR TETER  
ASHLEY TOWNSEND THOMAS  
WILLIAM EARL TURNER  
ROBERT ALLYN WALKER, A.B.  
CYRUS LANYON WHITE  
ROBERT E WILDER  
HOWARD HENRY WILLIS  
HAROLD ALFRED WOOD  
RALPH A WOODS  
WILLIAM EDSON WRIGHT

## The Degree of Doctor of Medicine

(Conferred June 8, 1918, in Chicago)

RICHARD ELSEPH ANDERSON, B.S.  
LYLE LELAND BROWN  
FRED ELTON CARPENTER, B.S.  
CARTER NEVILLE COLBERT  
ALBERT CHARLES D'VORAK, B.S.  
BENJAMIN QUINCY DYSART, B.S.  
JAMES EDWARD FETHERSTON, B.S., A.B.  
HAROLD EMERY HOCUM  
PAUL ROBERT HUBER, Ph.G.  
CHARLES EDWARD IRWIN, A.B.  
ORION CHESTER JONES, B.S.  
ALBERT JOHN JONGEWAARD, B.S.  
JOSEPHINE KENNEDY, A.B.  
GEORGE KOPTIK, B.S.  
DAVID LIONEL LIBERMAN

LUTHER WILBUR LOVING  
JULIAN BARNETT MARKS  
RAYMOND JOHN MERCEY, B.S.  
THOMAS NILES BERTON MURPHY, B.S., A.B.  
CLARA M OCHS, B.S.  
ARTHUR HENRY ORCUTT, A.B., B.S.  
CHESTER HENRY PERKINS, B.S.  
FRANCIS PIASECZYNSKI, B.S.  
ARTHUR GEORGE RIEKE, B.S.  
GEORGE WILLIAM SCHELM, B.S.  
EDNA KATHRYNE SEXSMITH, A.B.  
EDWARD FRANK SLADEK, B.S.  
CLYDE SAMUEL THOMAS, A.B., A.M.  
GUY LEON WAGONER, B.S.  
LOUIS FRANCIS WALDMANN, B.S.

<sup>1</sup> Degree conferred February 16, 1918.<sup>2</sup> Degree conferred October 16, 1918.

## THE COLLEGE OF DENTISTRY

### The Degree of Doctor of Dental Surgery

(Conferred June 8, 1918, in Chicago)

OSCAR ACHINELLY  
BERNARD ROBERT ALLEN  
JAMES HAROLD ALLGEIER  
J. BERTRAM ARNESON  
ABRAHAM K. BASHUR  
STANLEY CURTIS BELL  
CHESTER PETER BELLAN  
AUSTIN TELYEA BREYER  
ORVILLE CLINTON BRIGGS  
CLYDE WILLIAM BROWN  
ROWLAND HUGH CAMPBELL  
FREDERICK WILLIAM CARROLL<sup>1</sup>  
GERALD RALPH COLLINS  
BURR RAYMOND CROCKETT  
NORRIS LEE CUNNINGHAM  
ALBERT ROLAND DIPP  
ARTHUR SYLVESTER DREA  
ISAAC HARRY DROHER  
CHESTER DAVIS DURSEMA  
EDWIN OLUF ERICKSON  
MAC CARLYLE FELLOWS  
CHARLES BOYD FREEMAN  
ALBERTO GAVIRIA, D.D.S.

ISADORE GOLDBERG<sup>1</sup>  
FRANCIS LOYOLA GORMAN, Ph.G.  
NORMAN OSCAR HEWITT  
LILIAN ANNE KADLEC<sup>1</sup>  
ALFRED JOHN KETTERHAGEN  
OSCAR R. KORSBEEK  
LUCIAN CHARLES KOZICZYNSKI  
MAX HOWARD KROST  
HERMAN D. LASKER  
WILLARD CARLYLE MASTERS  
CLAYTON JAMES MOORE  
CHAUNCEY EDWIN MOTLONG  
FIDEL CADINANOS OCHOA, Ph.B.<sup>1</sup>  
WILLIAM DUMAS OLSON  
JESSE SETH OWEN  
BENJAMIN GILES PYLE  
GEORGE SHANNON REED  
WILLIAM ROSENTHAL  
EDMUND HENRY SAVAGE  
MYRON JULIUS SENTY  
ROBERT CECIL SHAUER  
CHARLES LEROY SMITH  
PAUL ALFRED SNOEBERGER

## THE SCHOOL OF PHARMACY

### The Degree of Pharmaceutical Chemist

(Conferred June 8, 1918, in Chicago)

\*GEORGE MATTHEW CAMPBELL  
JOSEPHINE MARION DYNIEWICZ

HATTIE ADELA DYNIEWICZ  
\*HANS WAGNER VAHLTEICH

### The Degree of Graduate in Pharmacy

(Conferred June 8, 1918, in Chicago)

NEFF KUYPER BAKKERS  
EDGAR BALDWIN  
CHRISTOPHER BARONE  
FREDERIC ALVIN BENGSTON  
PAUL BRONNER  
HAROLD IVAN EARLY  
JULIUS SYLVESTER FAHRNER  
ANTON HARRY FLORIAN  
WALLACE JOSEPH FORMHALS  
KARL WILLIAM FRASE  
\*RICHARD EMMANUEL GRENBERG  
ARTHUR GUSTAV GROSSE  
ERVIN JOHN HAEBERLE  
\*LESLIE ALLEN HOUSE  
ALEXANDER CARL MAYERSON  
PAULINE MCCLURE  
HUBERT FRED OWENS  
FRANK DANIEL PERSON  
VICTOR HUMBERTO PEREZ

WILLIAM FRANCIS RALPH  
HAROLD ALLEN SHINDLER  
WILLIAM CHARLES SPANIER  
RUSSELL MYERS STEWART  
RAYMOND LEE THOMPSON  
JOSEPH A. UNGER  
EARL HAROLD UNSETH  
GEORGE WASHINGTON WOOD  
\*ARNIN ROBERT WYLE  
EDNAH BLANCHE ANDERSON (Class of 1917)  
WILLIAM DUBROFF (Class of 1916)  
ANTON CARL FRIEDLEY (Class of 1917)  
ELIAS GRANT GUILD (Class of 1917)<sup>2</sup>  
CECIL MCCANSE (Class of 1916)  
REUBEN AUGUST RYLANDER (Class of 1916)  
JEANETTE H. SIKUCKA (Class of 1916)  
DONALD FLETCHER SIMMONS (Class of 1917)<sup>2</sup>  
JOHN GEORGE VLADYNY (Class of 1916)  
LOUIS WISCHNIA (Class of 1915)

## THE GRADUATE SCHOOL

### The Degree of Master of Arts

#### *In Chemistry*

ROSSELENE MERLE ARNOLD, A. B. (*Oberlin College*) 1916  
MINER MANLY AUSTIN, A.B. (*Lawrence College*) 1916

#### *In Classics*

GRACE GREEN, A.B. (*Illinois Wesleyan University*) 1917  
MONA PEARL HODNETT, A.B. (*Bates College*) 1916  
HENRY WILBUR KAMP, A.B., 1917  
ALICE GERTRUDE KING, A.B. (*Bates College*) 1916

<sup>1</sup> Degree conferred October 16, 1918.

<sup>2</sup> Degree conferred February 16, 1918.

*In Economics*

- ANANIAS CHARLES LITTLETON, A.B., 1912 (Business Organization and Operation)  
 PAUL HARWOOD MILLAR, A.B. (*Hendrix College*) 1914, B.S. (*University of Arkansas*) 1917  
 ALVA LEROY PRICKETT, A.B., 1913  
 SAICHIRO TAKASHIMA, A.B., A.M. (*Tokyo Higher Commercial School*) 1909, 1911

*In Education*

- FLORENCE ELSIE BOEHMER, A.B. (*Drury College*) 1912  
 WARREN KENNETH LAYTON, A.B. (*Northwestern University*) 1911<sup>1</sup>  
 LELAND GEORGE OSBORN, B. S. (*Shurtleff College*) 1912, A.B., 1914  
 JOHN CORWIN REEDER, A.B., 1917<sup>2</sup>  
 CLARA MABEL SMITH, A.B., 1917<sup>2</sup>  
 LEWIS WARD WILLIAMS, Ph.B. (*Hiram College*) 1909<sup>2</sup>

*In English*

- HAZEL ELIZABETH BROWN, B.S. (*Coe College*) 1915  
 DOROTHY ETTA BUNDY, A.B. (*University of Wisconsin*) 1915  
 HAZEL KATHERINE HOUCK, A.B. (*Illinois Woman's College*) 1917  
 ADLE MASTEN, A.B. (*University of Wisconsin*) 1915  
 MARTHA LUCILE MELOY, A.B. (*Monmouth College*) 1917  
 LENA JOSEPHINE MYERS, A.B., 1913  
 MARY HONORA PENDERGAST, A.B., 1917  
 ORA MARY THEOBALD, A.B. (*Illinois Woman's College*) 1917  
 WILLIAM CHILTON TROUTMAN, A.B., 1917  
 THOMAS CARLTON UPHAM, B.S. (*Massachusetts Agricultural College*) 1916

*In German*

- AMY ADALINE BEACH, A.B., 1914  
 EMMA BERTHA BUTZOW, A.B., 1914<sup>2</sup>  
 EDITH MARIE EMERSON, A. B. (*Illinois College*) 1917  
 HELEN IRENE HANNA, A.B. (*Central College*) 1916  
 JENNIE ALMA WHITTEN, A.B., 1917

*In History*

- VIOLA BROOKS, A.B., 1917  
 DEE DORSEY, A.B. (*Hedding College*) 1917  
 MARGARET SCUDDER HALEY, A.B. (*Knox College*) 1917  
 LANE W LANCASTER, A.B. (*Ohio Wesleyan University*) 1915  
 JENNIE McELWAIN, B.S. (*Hedding College*) 1905  
 MARY HAZEL SNUFF, A.B. (*Northwestern College*) 1917  
 TSEH LING TSU, A.B. (*University of Nanking*) 1914  
 \*FREMONT PHILIP WIRTH, A.B., 1917

*In Household Science*

- ZILPHA CURTIS BATTEY, A.B., 1917

*In Physics*

- CHING LEE HSUN, A.B., 1917

*In Political Science*

- EDWIN ANDERS, A.B., 1905  
 HUNG LIEH CHANG, A.B. (*Baldwin-Wallace College*) 1916, A.B., 1917  
 QUEH KING CHEN, A.B., 1917<sup>1</sup>

*In Romance Languages*

- LEORA ALMITA FITZ-GERALD, A.B., 1916  
 MANUEL LEON LOPEZ, A.B. (*Ohio Wesleyan University*) 1916  
 JANE FRANCES MARTEN, A.B. (*Oxford College*) 1916<sup>1</sup>

*In Sociology*

- CHESTER CLYDE HARRISON, A.B. (*University of Michigan*) 1914  
 J ORIN POWERS, A.B., 1917

*In Zoology*

- GERTRUDE MELLE HOOPER, A.B. (*Jackson College*) 1915  
 LESTER CARLTON VER NOOY, A.B. (*Amherst College*) 1916  
 ASA ORRIN WEBSE, A.B. (*University of Minnesota*) 1909<sup>1</sup>

## The Degree of Master of Science

*In Agronomy*

- FREDERICK CHARLES BAUER, B.S., 1909<sup>2</sup>  
 \*ROY HANSEN, B.S., 1914  
 WINFIELD SCOTT, B.S., 1916

*In Animal Husbandry*

- PAUL SIEN CHUNG, B.S. (*Iowa State College*) 1917  
 GILBERT GUSLER, B.S. (*Ohio State University*) 1912  
 CLAUDE LIGONIER HARPER, B.S. (*Purdue University*) 1914

<sup>1</sup> Degree conferred February 16, 1918.

<sup>2</sup> Degree conferred October 16, 1918.



*In Architecture*RALPH STANLEE FANNING, B. Arch. (*Cornell University*) 1912<sup>1</sup>*In Botany*RICHARD ALONZO GANTZ, A.B. (*University of Michigan*) 1912*In Chemistry*

OTIS AVERY BARNES, B.S., 1916<sup>2</sup>  
 HARRY JAMES BEATTIE, A.B., A.M. (*University of Denver*) 1914, 1915  
 MADELINE BIXBY, B.S. (*Tufts College*) 1916  
 RUSSELL STARKEY BRACEWELL, A.B. (*University of Kansas*) 1916  
 \*MAX SHAW DUNN, A.B. (*Simpson College*) 1916  
 HENRY CHARLES ECKSTEIN, A.B., 1915  
 \*ARTHUR BLAINE HAW, B.S. (*Harvard University*) 1913  
 LLOYD BRELSFORD HOWELL, A.B. (*Wabash College*) 1909<sup>1</sup>  
 JIN JEE HSUN, B.S., 1917  
 LINTON MILLARD SMITH, B.S. (*Shurtleff College*) 1916<sup>2</sup>  
 OTTO MITCHELL SMITH, B.S. (*Drury College*) 1907  
 LYNNE HERMAN ULICH, B.S. (*Grinnell College*) 1914

*In Civil Engineering*

YI LIU, Associate (*Tangshan Engineering College*) 1916  
 YANG FENG TSENG, B. S. (*Pei Yang University*) 1911

*In Entomology*\*FENNER SATTERTHWAITE STICKNEY, B.S. (*University of California*) 1916*In Geology*HAROLD FORDYCE CROOKS, A.B., 1916<sup>1</sup>*In Household Science*MILDRED GAIL WRIGHT, B.S. (*Milwaukee-Downer College*) 1917*In Mathematics*

FLORENCE LONG, B.S. (*Earlham College*) 1913  
 CLARENCE HUDSON RICHARDSON, B.S. (*University of Kentucky*) 1913

*In Mechanical Engineering*

HARRY FREDERICK GODEKE, B.S., 1905

*In Pathology and Bacteriology (Medicine)*HARRY CULVER, B.S. (*University of Wisconsin*) 1910*In Physics*CARL ELI PIKE, B.S. (*Cornell College*) 1916*In Zoology*

\*JESSE ROY CHRISTIE, B.S. (*Kentucky State University*) 1914  
 BERTHA LANGWILL, B.S. (*Rockford College*) 1916  
 HENRY EDWARD SCHRADIECK, B.S. (*Cornell University*) 1916

## Professional Degrees in Engineering

*The Degree of Master of Architecture*REXFORD NEWCOMB, B.S., 1911, M.A. (*University of Southern California*) 1915*The Degree of Architectural Engineer*

LESLIE ABRAM WATERBURY, B.S. in C.E., 1902, C.E., 1905, B.S. in A.E., 1915

*The Degree of Civil Engineer*

ALBERT STEVENS FRY, B.S., 1913  
 PAUL KIRCHER, A.B., B.S., 1911, 1912

*The Degree of Electrical Engineer*

ALBAN WHITFORD MANN, B.S., 1911

## The Degree of Doctor of Philosophy

*In Botany*

WALTER SPURGEON BEACH, B.S. (*University of Minnesota*) 1914, M.S. (*Michigan Agricultural College*) 1915  
 FORREST ELLWOOD KEMPTON, B.S. (*Earlham College*) 1906, M.S. (*University of Wisconsin*) 1913  
 WILLIAM EUGENE PICKLER, A.B. (*Wabash College*) 1914

<sup>1</sup> Degree conferred February 16, 1918.<sup>2</sup> Degree conferred October 16, 1918.

*In Chemistry*

- JOSEPH MARVIN BRAHAM, B.S., Chem. Engr. (*University of Idaho*) 1914, M.S., 1915  
 ERNEST EDWARD CHARLTON, A.B. (*Grinnell College*) 1913, M.S., 1915  
 JAY THOMAS FORD, A.B. (*DePaul University*) 1914, M.S., 1916  
 WILLIAM DURRELL HATFIELD, B.S. (*Illinois College*) 1914, M.S., 1916  
 JOHN FREDERICK GROSS HICKS, B.S. (*University of Pennsylvania*) 1906, M.S., 1916  
 RUTH ELIZA OKEY, B.S. (*Monmouth College*) 1914, M.S., 1915  
 ALBERT WAFFLE OWENS, B.S. (*Bucknell University*) 1909  
 ALFRED RICHARD POWELL, B.S. (*University of Kansas*) 1914, A.M. (*University of Nebraska*) 1915  
 EDWIN ARTHUR REES, A.B., A.M. (*University of Denver*) 1913, 1914  
 FLOYD ELBA ROWLAND, B.S. (*Oregon Agricultural College*) 1907, A.B., A.M., 1914, 1915  
 ERNEST HENRY VOLLWEILER, A.B. (*Miami University*) 1914, A.M., 1916  
 TERRANCE ONAS WESTHAFFER, A.B. (*University of Oklahoma*) 1914, M.S., 1916

*In Economics*

- CLARE ELMER GRIFFIN, A.B. (*Albion College*) 1914, A.M., 1915  
 WILLIAM HENRY DRESEN, A.B. (*Greenville College*) 1907, A.M., 1916  
 GEORGE HILLIS NEWLOVE, Ph.B. (*Hamline University*) 1914, A.M. (*University of Minnesota*) 1915

*In Education*

- JOHN ALFORD STEVENSON, A.B. (*Ewing College*) 1908, A.M. (*University of Wisconsin*) 1912

*In English*

- EASLEY STEPHEN JONES, A.B., A.M. (*University of Colorado*) 1907, 1909, A.M. (*Harvard University*) 1913  
 ALBERT KEISER, A.B. (*Wartburg College*) 1911, A.M. (*University of Montana*) 1915  
 EMERSON GRANT SUTCLIFFE, A.B. (*Harvard University*) 1911, A.M., 1914  
 ROBERT CALVIN WHITFORD, A.B. (*College of the City of New York*) 1912, A.M. (*Columbia University*) 1913

*In History*

- FRANKLIN CHARLES PALM, A.B. (*Oberlin College*) 1914, A.M., 1915

*In Mathematics*

- RAYMOND FRANKLIN BORDEN, Ph.B., A.M. (*Brown University*) 1914, 1915  
 WILLIAM DICKINSON FRARY, M.E., M.S. (*University of Minnesota*) 1908, 1909  
 MERLIN GRANT SMITH, A.B. (*Greenville College*) 1915, A.M., 1916

*In Physics*

- SEBASTIAN KARRER, A.B., A.M. (*University of Washington*) 1911, 1913  
 EARLE HORACE WARNER, A.B. (*University of Denver*) 1912, A.M., 1914

*In Romance Languages*

- JOHN RAYMOND SHULTERS, A.B., A.M., 1910, 1911

*In Zoology*

- MINNA ERNESTINE JEWELL, A.B. (*Colorado College*) 1914, A.M., 1915  
 JAMES ERNEST KINDRED, A.B. (*Tufts College*) 1914, A.M., 1915  
 EDWIN BOOTH POWERS, A.B. (*Trinity University*) 1906, M.S. (*University of Chicago*) 1913

## SCHOLARS AND FELLOWS, 1918-1919

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CHESTER REED ANDERSON, Scholar in English (January to June)  
BEULAH MAY ARMSTRONG, Scholar in Mathematics  
NELLIE CATHERINE ARMSTRONG, Scholar in History (*Nominee of Knox College*)  
LOIS MERRILL AUSTIN, Scholar in Romance Languages  
MARION JEWETT AUSTIN, Scholar in English (*Nominee of Illinois Wesleyan University*)  
MINER MANLEY AUSTIN, Fellow in Chemistry  
CLARENCE A BERDAHL, Fellow in Political Science (January to June)  
BRUCE KEITH BROWN, Scholar in Chemistry (January to June)  
ETHELRED ERASMUS CAMPBELL, Scholar in Chemistry  
MARGARET MARY CLOYD, Scholar in Romance Languages (*Nominee of James Millikin University*)  
LOIS VIRGINIA DANIELS, Scholar in Mathematics  
ROY L DAVIS, Fellow in Education (January to June)  
MARGARET KATE DAWSON, Scholar in Physics  
BEATRICE EARLE DEAN, Scholar in Romance Languages  
ERNEST E DE TURK, Fellow in Agronomy  
MARGARET ALICE FINLEY, Scholar in Classics  
DENNA FRANK FLEMING, Scholar in Political Science (January to June)  
THEODORE HENRY FRISON, Scholar in Entomology (January to June)  
JAY HOWARD GAGE, Scholar in Entomology  
ROSCOE H GERKE, Scholar in Chemistry (January to June)  
ISAAC HAHN GODLOVE, Fellow in Chemistry  
WILLIAM IRA GOOCH, Scholar in Political Science (January to June)  
GEORGE M HIGGINS, Fellow in Zoology (January to June)  
FLORA EMILY HOTTES, Scholar in English  
LLOYD BRELSFORD HOWELL, Fellow in Chemistry  
DOROTHY NADINE HURLBUT, Scholar in Home Economics  
SUE HUTCHINSON, Scholar in Education  
ZOLTON IRSHAY, Scholar in Philosophy (*Nominee of Lake Forest College*)  
JESSIE MARIE JACOBS, Fellow in Mathematics  
CYRUS WILLIAM LANTZ, Fellow in Botany (January to June)  
BERYL FRANKLIN LOVE, Scholar in Physics  
MARY EMMELINE MCCLELLAN, Scholar in Romance Languages (*Nominee of Monmouth College*)  
WILLIAM L MCCLURE, Fellow in Chemistry (January to June)  
CATHERINE NEEDHAM, Scholar in English (*Nominee of College of Liberal Arts and Sciences*)  
LUCILE PARKINSON, Scholar in Romance Languages (*Nominee of Eureka College*)  
MARGARET JOSEPHINE PIRES, Scholar in Home Economics (*Nominee of Illinois Women's College*)  
LOREL ATTA PRUITT, Scholar in English  
RAY STUART QUICK, Scholar in Electrical Engineering (January to June)  
MARCENA ESTLE RUSSELL, Scholar in Mathematics (*Nominee of Rockford College*)  
ARSHAG KILLIVAN SEVERIAN, Scholar in Zoology  
ERNEST RUDOLPH SCHULZ, Fellow in Agronomy  
GEORGE EDWARD SLADEK, Scholar in Ceramics (January to June)  
ELMER B VLIET, Scholar in Chemistry (January to June)  
VEDA MAE VOSE, Scholar in German  
BERNHARD ALEXANDER UHLENDORF, Fellow in German (January to June)  
LYNNE HERMAN ULICH, DuPont Fellow in Chemistry  
LANSING SADLER WELLS, Fellow in Chemistry  
FREMONT PHILLIP WIRTH, Fellow in History (January to June)  
HACHIRO YUASA, Fellow in Entomology  
TRUMAN GEORGE YUNCKER, Fellow in Botany (January to June)

# UNIVERSITY HONORS

Awarded by the Faculty of the University

## HONORS AT COMMENCEMENT

(June, 1918)

College of Liberal Arts and Sciences

### THE DEGREE OF A. B. WITH HONORS

THEODORE HENRY FRISON, in Entomology	CATHERINE NEEDHAM, in English
HELEN ANASTASIA MCGINNIS, in Botany	ERNEST JESSE WILKINS, in Mathematics
HELEN JACKSON WILLIAMS, in Mathematics	

### SPECIAL HONORS

College of Liberal Arts and Sciences

ERNEST WILLIAM GUERNSEY, in Chemistry	KARL LUDWIG DERN, in Chemical Engineering
HARRY STIRLING SNELL, in Chemistry	ROSCOE HARLAN GERKE, in Chemical Engineering
WALTER FRED STRAUB, in Chemistry	NORMAN WILLIAM KRASE, in Chemical Engineering
FRANK WAYNE VALENTINE, in Chemistry	ALBERT OTTO MATTHEWS, in Chemical Engineering
BENJAMIN EMANUEL COHN, in Chemical Engineering	ELMER BENNETT VLIET, in Chemical Engineering

College of Engineering

JACOB HOWARD EUSTON

College of Agriculture

GEORGE EDWARD KIRCHNER FAGER, in Agriculture	EARL JEROME GRIMES, in Agriculture
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### FINAL HONORS

College of Liberal Arts and Sciences

ERNEST WILLIAM GUERNSEY	WALTER FRED STRAUB
NORMAN WILLIAM KRASE	FRANK WAYNE VALENTINE
	ELMER BENNETT VLIET

College of Commerce and Business Administration

ROBERT ALFRED BRYANT	FRANCELIA PLUMLY SARGENT
WILLIAM LEE KLINK	FRANK SPAIN SHY
	MERLYN RULOFF WHITNEY

College of Engineering

WILLARD EDWIN BULL	GLENN KOEHLER
EARLE WESLEY CARRIER	OSCAR IVAN LYONS
HELGE CHRISTOPHER DIESERUD	RUDOLPH RAHN
FERDINAND ARTHUR ELL	CHARLES EDWARD RANDA
JACOB HOWARD EUSTON	ERNEST LAWRENCE STOFFER
RONALD EDWARD FOULKE	JOSEPH FRANCIS VOPAT

College of Agriculture

ELMER ELLSWORTH BROWN	DONALD RICHARDS MITCHELL
GEORGE EDWARD KIRCHNER FAGER	ARTHUR BECKMAN ROBERTSON
JOHN ZIMMERLY FRAZIER	FRANK SAILER
EARL JEROME GRIMES	GERTRUDE ELIZABETH SAWYER
HERBERT STASSEN HINRICHS	NATHANIEL SMITH VIAL
JOHN LAMB, JR.	MILDRED WINFRED WRIGHT

Library School

ROBINSON SPENCER

PRIZES

**American Institute of Architects Medal**

ERNEST LAWRENCE STOFFER

**The Francis John Plym Prize for Architectural Engineers**

DONALD DANA GROVER

**The Scarab Competition in Architecture**

BRENT GIRDLER WEBB

**The B'nai B'rith Prize**

ABRAHAM SHAPIRO

**The Phi Beta Kappa Prize**

CATHERINE NEEDHAM

**The St. Patrick's Day Prize**

*Not Awarded*

**The Bryan Prize**

ORVILLE JENNINGS CREWS

**The Thacher Howland Guild Memorial Prize**

DOROTHY HUNTINGTON HILL

**Conference Medal for Excellence in Scholarship and Athletics for the Year 1918**

JOHN LEO KLEIN

**Prizes in Public Speaking**

1918

EDWARD B HAYES, first prize

TRUMAN SEARLE, second prize

1919

GALEN V KNIGHT

# SUMMARY OF DEGREES CONFERRED

1918

## *Degrees in the Graduate School*

	Men	Women	Total
A.M.....	18	26	44
A.M.—(February 16, 1918).....	3	1	4
A.M.—(October 16, 1918).....	2	2	4
M.S.....	23	4	27
M.S.—(February 16, 1918).....	3	..	3
M.S.—(October 16, 1918).....	3	..	3
M. Arch.....	1	..	1
A.E.....	1	..	1
C.E.....	2	..	2
E.E.....	1	..	1
Ph.D.....	31	2	33
<i>Total, Graduate School.....</i>	<i>88</i>	<i>35</i>	<i>123</i>

## *Degrees in Liberal Arts and Sciences*

A.B.—with thesis.....	7	7	14
A.B.—without thesis.....	35	101	136
A.B.—(February 16, 1918).....	4	2	6
A.B.—(October 16, 1918).....	11	17	28
A.B.—Household Science.....	..	62	62
A.B.—Household Science (October 16, 1918).....	..	3	3
B.S.—Chemistry (with thesis).....	10	..	10
B.S.—Chemistry (October 16, 1918).....	1	..	1
B.S.—Chemical Engineering (with thesis).....	14	..	14
B.S.—Chemical Engineering (February 16, 1918).....	3	..	3
B.S.—Chemical Engineering (October 16, 1918).....	3	..	3
B.L.—(earlier class).....	1	..	1
<i>Total, Liberal Arts and Sciences.....</i>	<i>89</i>	<i>192</i>	<i>281</i>

## *Degrees in Commerce and Business Administration*

A.B.—with thesis.....	1	..	1
A.B.—without thesis.....	34	2	36
A.B.—(October 16, 1918).....	1	..	1
B.S.—without thesis.....	15	1	16
B.S.—(February 16, 1918).....	1	..	1
<i>Total, Commerce.....</i>	<i>52</i>	<i>3</i>	<i>55</i>

## *Degrees in Engineering*

B.S.—Architecture.....	10	..	10
B.S.—Architectural Engineering.....	17	..	17
B.S.—Ceramic Engineering.....	4	..	4
B.S.—Civil Engineering.....	20	..	20
B.S.—Electrical Engineering.....	29	..	29
B.S.—Electrical Engineering (October 16, 1918).....	1	..	1
B.S.—Mechanical Engineering.....	26	..	26
B.S.—Mining Engineering.....	4	..	4
B.S.—Mining Engineering (earlier class).....	1	..	1
B.S.—Municipal and Sanitary Engineering.....	1	..	1
B.S.—Railway Civil Engineering.....	4	..	4
B.S.—Railway Civil Engineering (February 16, 1918).....	1	..	1
B.S.—Railway Electrical Engineering.....	2	..	2
B.S.—Railway Mechanical Engineering.....	1	..	1
<i>Total, Engineering.....</i>	<i>121</i>	<i>..</i>	<i>121</i>

*Degrees in Agriculture*

B.S.—with thesis.....	3	..	3
B.S.—without thesis.....	77	..	77
B.S.—(February 16, 1918).....	12	..	12
B.S.—(October 16, 1918).....	5	..	5
B.S.—Floriculture.....	1	..	1
B.S.—Landscape Gardening.....	9	4	13
B.S.—Household Science.....	..	25	25
B.S.—Household Science (February 16, 1918).....	..	1	1
B.S.—Household Science (October 16, 1918).....	..	2	2
<i>Total, Agriculture</i> .....	107	32	139

*Degrees in Law*

LL.B.....	4	..	4
LL.B.—(February 16, 1918).....	1	..	1
<i>Total, Law</i> .....	5	..	5

*Degrees in Library Science*

B.L.S.....	1	10	11
B.L.S.—(February 16, 1918).....	..	1	1
<i>Total, Library Science</i> .....	1	11	12

*Degrees in Music*

B. Mus.—with thesis.....	..	6	6
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TOTAL, COLLEGES AND SCHOOLS AT URBANA.....	463	279	742
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*Degrees in Medicine*

B.S.....	65	2	67
B.S.—(October 16, 1918).....	1	..	1
M.D.....	27	3	30
<i>Total, Medicine</i> .....	93	5	98

*Degrees in Dentistry*

D.D.S.....	42	..	42
D.D.S.—(October 16, 1918).....	4	..	4
<i>Total, Dentistry</i> .....	46	..	46

*Degrees in Pharmacy*

Ph.C.....	2	2	4
Ph.G.....	33	3	36
Ph.G.—(February 16, 1918).....	2	..	2
<i>Total, Pharmacy</i> .....	37	5	42

TOTAL, COLLEGES AND SCHOOLS IN CHICAGO.....	176	10	186
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GRAND TOTAL.....	639	289	928
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# SUMMARY OF OFFICERS BY COLLEGES AND SCHOOLS

1918-1919

## OFFICERS OF INSTRUCTION

COLLEGES, SCHOOLS, AND DEPARTMENTS	PROFESSORS		ASSOCIATE PROFESSORS		ASSISTANT PROFESSORS		ASSOCIATES	
	Men	Wom.	Men	Wom.	Men	Wom.	Men	Wom.
Liberal Arts and Sciences.....	47	..	8	..	28	..	17	2
Commerce and Business Admin- istration.....	3	..	1	..	3	..	..	..
Engineering.....	27	..	3	..	12	..	19	..
Agriculture.....	23	1	8	1	12	..	33	12
Music.....	1	..	..	..	2	..	..	..
Education.....	5	..	..	..	2	..	..	..
Law.....	6	..	..	..	..	..	..	..
Library.....	1	..	..	..	2	..	1	..
Military Science.....	1	..	1	..	1	..	1	..
Physical Education.....	1	1	..	..	..	..	4	..
Photography.....	..	..	..	..	..	..	..	..
<i>Totals at Urbana.....</i>	<i>115</i>	<i>2</i>	<i>21</i>	<i>1</i>	<i>60</i>	<i>2</i>	<i>75</i>	<i>14</i>
Medicine.....	17	..	10	1	23	..	23	..
Dentistry.....	8	..	4	..	5	..	3	..
Pharmacy.....	2	..	..	..	2	..	..	..
<i>Totals in Chicago.....</i>	<i>27</i>	<i>..</i>	<i>14</i>	<i>1</i>	<i>30</i>	<i>..</i>	<i>26</i>	<i>..</i>
<b>TOTALS IN UNIVERSITY.....</b>	<b>142</b>	<b>2</b>	<b>35</b>	<b>2</b>	<b>90</b>	<b>2</b>	<b>101</b>	<b>14</b>
<b>OFFICERS OF ADMINISTRATION</b>								
General.....	..	..	..	..	..	..	..	..
Library Staff.....	..	..	..	..	..	..	..	..
<b>TOTAL, INSTRUCTIONAL AND ADMINISTRATIVE.....</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>
<i>Deduct Duplicates:</i>								
Instructional Officers holding Administrative Positions.....	..	..	..	..	..	..	..	..
Instructional Officers in Chicago holding more than one Position.....	..	..	..	..	..	..	..	..
<b>NET TOTAL IN UNIVERSITY.....</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>



# SUMMARY OF OFFICERS BY COLLEGES AND SCHOOLS

1918-1919

SPECIAL LECTURERS		INSTRUCTORS		ASSISTANTS		GRADUATE ASSISTANTS		STUDENT ASSISTANTS		TOTALS		Total
Men	Wom.	Men	Wom.	Men	Wom.	Men	Wom.	Men	Wom.	Men	Wom.	
1	..	23	12	51	34	11	6	8	2	194	56	250
1	..	6	..	6	1	..	..	..	..	20	1	21
..	..	26	..	15	1	6	1	2	..	110	2	112
..	1	7	4	9	5	..	..	..	..	92	24	116
..	..	4	3	..	..	..	..	..	..	7	3	10
3	..	..	..	2	2	..	..	..	..	12	2	14
..	..	1	..	..	..	..	..	..	..	7	..	7
..	2	..	2	..	1	..	..	..	..	2	7	9
..	..	..	..	..	..	..	..	12	..	16	..	16
..	..	1	4	2	1	..	..	..	1	8	7	15
..	..	1	..	..	..	..	..	..	..	1	..	1
5	3	69	25	85	45	17	7	22	3	469	102	571
3	..	29	2	16	4	..	..	..	..	121	7	128
1	..	11	1	6	2	1	..	1	..	40	3	43
1	..	3	1	..	..	..	..	..	..	8	1	9
5	..	43	4	22	6	1	..	1	..	169	11	180
10	3	112	29	107	51	18	7	23	3	638	113	751
.....										47	3	50
.....										4	36	40
.....										689	152	841
.....										26	2	28
.....										13	..	13
.....										650	150	800

# SUMMARY OF STUDENTS 1918-1919

College and Course	Seniors			Juniors			Sophomores		
	Men	Wom.	Total	Men	Wom.	Total	Men	Wom.	Total
<b>LIBERAL ARTS AND SCIENCES</b>									
General.....	27	115	142	46	144	190	60	123	183
Journalism.....	3	5	8	10	..	10	18	13	31
Home Economics.....	..	64	64	..	62	62	..	39	39
Preparatory to Law.....	4	..	4	6	..	6	17	1	18
Preparatory to Medicine.....	..	..	..	11	..	11	34	3	37
Chemistry.....	16	3	19	20	5	25	20	5	25
Chemical Engineering.....	19	..	19	39	..	39	31	..	31
<i>Totals.....</i>	69	187	256	132	211	343	180	184	364
<b>COMMERCE AND BUSINESS</b>									
ADMINISTRATION.....	42	3	45	108	11	119	157	17	174
<b>ENGINEERING</b>									
Architecture.....	9	..	9	15	..	15	16	1	17
Architectural Engineering.....	4	..	4	12	..	12	19	..	19
Ceramic Engineering.....	3	..	3	6	..	6	2	..	2
Civil Engineering.....	15	..	15	28	..	28	33	..	33
Electrical Engineering.....	23	..	23	42	..	42	40	..	40
Mechanical Engineering.....	19	..	19	36	..	36	53	..	53
Mining Engineering.....	..	..	..	2	..	2	8	..	8
Mun. and San. Engineering.....	4	..	4	1	..	1	..	..	..
Railway Civil Engineering.....	3	..	3	3	..	3	2	..	2
Railway Electrical Engineering.....	..	..	..	3	..	3	2	..	2
Railway Mechanical Eng.....	1	..	1	..	..	..	..	..	..
General Eng. Physics.....	..	..	..	..	..	..	..	..	..
<i>Totals.....</i>	81	..	81	148	..	148	175	1	176
<b>AGRICULTURE</b>									
General.....	54	6	60	71	4	75	95	4	99
Home Economics.....	..	10	10	..	15	15	..	10	10
<i>Totals.....</i>	54	16	70	71	19	90	95	14	109
<b>MUSIC.....</b>	..	8	8	..	9	9	1	14	15
<b>TOTAL UNDERGRADUATES.....</b>	240	214	460	459	250	709	608	230	838
<b>LAW</b>									
3 year curriculum.....	Fourth Year			Third Year			Second Year		
4 year curriculum.....	1	..	1	..	1	1	10	1	11
<i>Totals.....</i>	1	..	1	..	1	1	11	1	12
<b>LIBRARY SCHOOL.....</b>							Sophomores		
							9		9
<b>TOTALS, UNDERGRADUATES AND PROFESSIONAL STUDENTS AT URBANA.....</b>									
<b>GRADUATE SCHOOL.....</b>									
<i>Deduct Duplicates<sup>1</sup>.....</i>									
<b>TOTALS AT URBANA, WINTER SESSION.....</b>									
<b>SUMMER SESSION, 1918</b>									
Undergraduates.....									
Graduates.....									
<i>Total, Summer Session.....</i>									
<i>Deduct Duplicates<sup>2</sup>.....</i>									
<b>NET TOTAL (Summer Session only).....</b>									
<b>TOTAL AT URBANA TO MAY 21, 1919.....</b>									
<b>MEDICINE (Chicago).....</b>									
Graduate Work in Medical Sciences.....	Fourth Year			Third Year			Second Year		
Curriculum in Medicine.....	48	2	50	84	4	88	68	5	73
<i>Total, Medicine.....</i>									
<b>DENTISTRY (Chicago).....</b>	67	4	71	6	1	7	28	..	28
<b>PHARMACY (Chicago).....</b>	..	..	..	6	..	6	22	1	23
<b>TOTAL IN CHICAGO.....</b>									
<b>TOTAL IN UNIVERSITY, TO MAY 21, 1919.....</b>									

<sup>1</sup>Individuals who were registered part of the year as undergraduates and part of the year as graduate students.

<sup>2</sup>Summer students who registered also during the following winter session.

# SUMMARY OF STUDENTS 1918-1919

Freshmen			Irregulars <sup>1</sup>			Specials			Totals		
Men	Wom.	Total	Men	Wom.	Total	Men	Wom.	Total	Men	Wom.	Total
337	298	635	2	14	16	13	20	33	485	714	1199
24	16	40	...	...	...	...	...	...	55	34	89
...	98	98	...	1	1	...	1	...	...	265	265
71	...	71	...	...	...	1	...	1	99	1	100
104	2	106	...	...	...	...	...	...	149	5	154
81	7	88	...	1	1	1	1	2	138	22	160
183	...	183	...	...	...	...	...	...	272	...	272
800	421	1221	2	16	18	15	22	37	1198	1041	2239
717	47	764	...	2	2	7	1	8	1031	81	1112
30	3	33	...	1	1	...	...	...	70	5	75
63	...	63	2	...	2	...	...	...	100	...	100
45	...	45	...	...	...	...	...	...	56	...	56
245	...	245	1	...	1	3	...	3	325	...	325
291	...	291	...	...	...	...	...	...	396	...	396
413	...	413	...	...	...	3	...	3	524	...	524
11	...	11	...	...	...	...	...	...	21	...	21
6	...	6	...	...	...	...	...	...	11	...	11
5	...	5	...	...	...	...	...	...	13	...	13
2	...	2	...	...	...	...	...	...	7	...	7
2	...	2	...	...	...	...	...	...	3	...	3
6	...	6	...	...	...	...	...	...	6	...	6
1119	3	1122	3	1	4	6	...	6	1532	5	1537
380	12	392	5	2	7	23	2	25	628	30	658
...	25	25	...	1	1	...	3	3	...	64	64
380	37	417	5	3	8	23	5	28	628	94	722
1	27	28	3	9	12	8	31	39	13	98	111
3017	535	3552	13	31	44	59	59	118	4402	1319	5721
First Year			...	...	...	5	2	7	34	6	40
18	2	20	...	...	...	...	...	...	9	1	10
8	1	9	...	...	...	...	...	...	...	...	...
26	3	29	...	...	...	5	2	7	43	7	50
Freshmen			...	...	...	...	5	5	3	26	29
3	12	15	...	...	...	...	...	...	4448	1352	5800
...	...	...	...	...	...	...	...	...	251	102	353
...	...	...	...	...	...	...	...	...	16	14	30
...	...	...	...	...	...	...	...	...	4683	1440	6123
...	...	...	...	...	...	...	...	...	222	420	642
...	...	...	...	...	...	...	...	...	75	31	106
...	...	...	...	...	...	...	...	...	297	451	748
...	...	...	...	...	...	...	...	...	126	143	269
...	...	...	...	...	...	...	...	...	171	308	479
First Year			...	...	...	...	...	...	4854	1748	6602
...	...	...	...	...	...	...	...	...	14	...	14
48	6	54	...	...	...	2	...	2	250	17	267
...	...	...	...	...	...	...	...	...	264	17	281
54	3	57	...	...	...	...	...	...	155	8	163
57	8	65	...	...	...	14	3	17	99	12	111
...	...	...	...	...	...	...	...	...	518	37	555
...	...	...	...	...	...	...	...	...	5372	1785	7157

<sup>1</sup>Students holding bachelor's degrees but taking undergraduate work.

# DIRECTORY OF ALUMNI ASSOCIATIONS

## GENERAL ALUMNI ASSOCIATION

Office: 358 Administration Building, University of Illinois, Urbana-Champaign.  
Official Publication: The ALUMNI QUARTERLY AND PORTNIGHTLY NOTES, 358 Administration Building.  
Editor: Carl Stephens, '12, 803 West Springfield Avenue, Champaign.  
To foster a spirit of loyalty and fraternity among the graduates and former students of the University of Illinois, and to effect united action in promoting the welfare of the University.  
President: E. C. Craig, '93, Mattoon, Ill.  
Secretary-Treasurer: Franklin W. Scott, '01, 803 Michigan avenue, Urbana, Ill.

## DEPARTMENTAL ALUMNI ASSOCIATIONS

The Alumni Association of the Library School  
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Secretary: Dr. W. C. Hammond, '11, 737 Sheridan Road, Chicago  
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President: Leo Mrazek, 1500 18th place, Chicago  
Secretary-Treasurer: B. L. Eicher, 701 S. Wood street, Chicago

## LOCAL ALUMNI ASSOCIATIONS

### California

SAN FRANCISCO: The Golden Gate Alumni Association of the University of Illinois  
President: Wm. G. Hummel, '07, 2691 Cedar street, Berkeley  
Secretary-Treasurer: Ruth Raymond Haseltine, '09, Berkeley  
SOUTHERN CALIFORNIA: The University of Illinois Alumni Association of Southern California  
President: James T. Barrett, '03, Riverside  
Secretary: Emma E. Seibert, '91, 1535 N. Western avenue, Los Angeles

### Colorado

University of Illinois Club of Colorado  
President: Frank L. Birney, '81, 309 Ideal Block, Denver  
Secretary-Treasurer: Dr. T. J. Fenton, '06, Majestic bldg., Denver

### District of Columbia

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Secretary: T. W. Walton, '10, 1736 G street  
Washington Illinae Club  
President: Mrs. Anne Swezey Armstrong, '03, 408 Fontanet court  
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### Illinois

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Secretary: Harold J. Howe, '14, 137 S. La Salle street  
University of Illinois Alumnae Association of Chicago  
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President: W. J. Carey, '06, 718 W. Marietta street

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(President and Secretary both in the Army. Send letters to K. H. Talbot, '09, Frick bldg.)

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## LOCAL ASSOCIATIONS IN FOREIGN COUNTRIES

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The Illini Club of Brazil

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Illini Club of Japan  
 President: S. Shiga, '93, Tokyo Technical School, Tokyo  
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